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Convairity

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Wednesday, September 3, 1958

SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

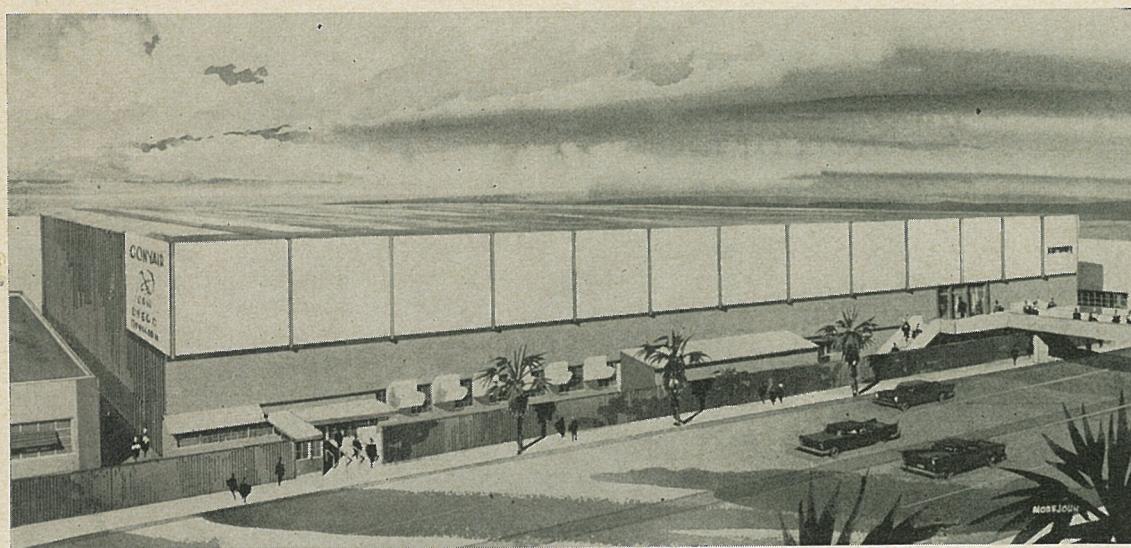
Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

DAINGERFIELD AND FORT WORTH, TEXAS



NEW FACE—Bldg. 5 at Convair San Diego will have a new "windowless" look soon when rehabilitation work spreads to include exterior. Artist's conception gives impression of what it will look like. Overpass No. 1 is at right.

Atlas Will be Unveiled This Month in Dallas

An Atlas missile will leave the Astronautics plant this month to appear in its first public showing in Dallas, Texas, on Sept. 25.

Public unveiling will be a major attraction of the Air Force Association's 1958 national conference and Airpower Panorama.

It will stop over at Convair Fort Worth until the exhibition site is prepared in Dallas.

The 75-foot ICBM will be hauled cross-country by trailer.

The missile—biggest in the nation's arsenal—will be unveiled

at 6 p.m. erected to firing position on the front lawn of Dallas' new downtown Memorial Auditorium.

Leaders of government, industry and defense who will witness the Atlas showing include Secretary of the Air Force James H. Douglas; Generals Thomas D. White and Curtis E. LeMay, respectively Chief and Vice Chief of Staff for the USAF; assistant secretaries of the Air Force; major air commanders; aircraft company presidents; congressmen; and Texas civic officials.

Bldg. 5 to Get New Exterior

Face lifting of the exterior of Bldg. 5 at Convair SD will begin the first of next week (Sept. 8).

When finished, SD Division's engineering and experimental building will be completely modernized in the Convair SD color scheme of yellow and brown.

The front of the building, facing Pacific Highway, will be windowless, with yellow enamel panels on the upper half concealing the air conditioning ducting. The lower part of the outside wall will be of stucco finish in chocolate brown.

Installation of the steel supports to frame the upper panels will commence next Monday with actual facing of the walls to proceed concurrently with interior renovation. Completion is scheduled for the middle of next March.

The front entrance from Overpass 1, connecting Bldg. 5 with Bldg. 19, will be enlarged and a new stairway installed from the second to third floor. While work is in progress on the entrance and stairway during the next two months traffic to and from Bldg. 19 will continue to use the overpass. Construction work will be suspended during heavy traffic times, at shift changes and lunch periods.

The second area of Bldg. 5 to be completed in the interior renovation program is Zone 2, rear northwest section of the second floor, which was due to be occupied this week when 350 flight test and experimental planning personnel move into their permanent quarters.

The relocation of the flight test department will clear Zone 4, the front half of the second floor, due to go into the works next week, according to present plans. Completion date is set for the first week of November.

Work is now in progress on (Continued on Page 2)

Astro Traffic Problem Subject of Conference

Four major roadway construction projects slated for early attention will have a direct bearing on traffic generated at Convair Astronautics.

Details of these projects, plus others to follow, came to light late last month. Occasion was one of a series of continuing meetings involving Astronautics, city, county and state traffic officials. They date back almost to the beginning of construction on the new Astro plant.

E. M. Hall, San Diego's traffic research director, briefed participants on the following projects:

Construction of a new by-pass between Murphy Canyon Road and Fairmount Extension for which work orders have been written. When completed, drivers using this route will funnel directly onto Highway 80 at the new Fairmount interchange and

avoid a traffic signal at Ward Road and Highway 80.

Widening of Kearny Villa Road to four lanes from Aero Drive to Clairemont Mesa Blvd. with contracts to be let this fall;

Widening of Aero Drive to four lanes, also slated to go to contractors in the fall; and,

Continuation of the task of widening Clairemont Mesa Blvd. to a full four lanes from Highway 395 to the Clairemont area which falls into tasks for the current budget year ending in June, 1959.

Hall indicated that present planning calls for making Highway 80 (Mission Valley) a complete freeway; improvement of Murphy Canyon Road to six lanes; widening of Ward Road with an interchange at Highway 80 and a new bridge at Adams (Continued on Page 2)

Registration For Cal Western To Open at Downtown Campus

Convair San Diego and Astronautics Divisions are cooperating for the third year with California Western University in a management development program. Registration dates for the fall semester are Sept. 15, 16, and 17, at the university's downtown campus, 1729 Fifth Ave. Classes begin Sept. 22.

Convair-paid tuition has been arranged for 187 SD and 62 Astro supervisors and non-represented flat-salaried personnel. Applicants from both divisions already total over half of the Convair maximum.

Inaugurated two years ago to increase supervisors' opportunities to improve themselves, the university is offering certificates in the fields of industrial management, business administration, finance, accounting, and person-

nel-human relations. Last semester nearly 200 SD and Astro supervisors attended evening classes working toward their certificates with some pointing toward bachelors' degrees in business.

Some liberal arts classes are approved if they are applicable to the individual's classification or to a degree or certificate.

Eligible night-shift participants may enter day courses at the Point Loma campus if working arrangements make attendance possible throughout an entire semester.

To register under the Convair-Cal Western program SD and Astro applicants must obtain forms from training coordinators of each division. D. G. Walton, ext. 1827, Plant 1, is in charge of San Diego Division registration, while (Continued on Page 2)

Astronautics Division's total "population" was very close to the 11,000 mark last week.

Bulk, of course, is at division's new plant on outskirts of San Diego. These number about 7,500. Still in San Diego Division buildings are about 750 individuals. There are more than 900 assigned to AFMTC in Florida and over 600 at ERB on the Mojave desert. At Sycamore test facility near San Diego there are about 500 and those at Cooke AFB, Calif., number nearly 200. The balance are at Pt. Loma facility and off-site in the San Diego metropolitan area.

Visitors Pledged Up-Close Look at Jet Interceptors

Visitors at Convair SD's Fiesta Open House this Saturday (Sept. 6) will view Convair-built military and commercial planes during their tour of the San Diego plant, said B. F. Coggan, SD Division manager and Convair vice president.

On display along Lindbergh Field at the west side of Plant 1 will be an F-106, latest model jet fighter-interceptor, an F-102, Convair-Liner 440 transport, T-29, and B-36.

Hours at both Plants 1 and 2 and the seaplane ramp on Harbor Drive will be from 9 a.m. until 4 p.m.

Entrance will be by the north overpass, near the employment building, and exit via the south overpass, in front of Bldg. 5. Shuttle buses will operate continuously between Plants 1 and 2.

Public parking will be available in Convair lots on the east side of Pacific Highway, across from Plant 1, and at the IAS building, north of the ramp, off Harbor Drive.

San Diego Transit System will provide extra bus service to the Plant 1 site during Open House hours to alleviate the parking problem.

Marked routes will direct visitors through fabrication, sub-assembly, major and final assembly areas at both Plants 1 and 2. The first 880 jet transport planes, now under construction, will be on view in Bldg. 2 at Plant 1 and the production line of the F-106 will be open to the public for the first time at Plant 2.

The world's fastest miniature rocket sled run will be exhibited at the seaplane ramp. The sled, fired by actual rockets, will speed down a 50-ft. set of dual rails every 15 minutes during Open House hours.

Also open to the public for the first time at the ramp will be the high-speed wind tunnel.

Continuous entertainment will be held in the exhibit area at Plant 1, between Bldgs. 3 and 4, from 10 a.m. to 3 p.m.

In keeping with the Open House theme, Coggan, together with his master group, and coordinating committee members, will appear (Continued on Page 2)



WELCOMING COMMITTEE—Coordinating plans for Convair San Diego's "Fiesta Open House" Sept. 6 are (left to right) R. L. Harmon, R. G. Glick, Ralph Fulk, L. E. Roth, Martin Miller, M. V. Clark, W. B. Harwell, F. G. Merritt, J. W. Vint, Dr. G. M. Clarke, Ken Wulfemeyer, H. G. Rote, L. W. Fitzgerald, D. H. Quinn, Jane Dulong, and Carl Shrick.

Convair to Train More 'Pioneers' In Automatic Tooling Technique

Build-up of a new Convair SD function is in the offing with the training of eligible Convair people in numerical control programming.

With few qualified people available in the new field, Convair SD is setting up its own training course in the compilation of data for the new method of automatic tooling.

The numerical control group was formed a little over a year ago as a section of Plant 2 tooling (Dept. 600-2) when Convair SD took delivery on its first piece of automatic tooling equipment, guided by the magnetic tape process.

"First settlers" of the group, now due for expansion, are six men who learned the process as it was developed—H. G. Cooper, numerical control project engineer, J. F. Realey, R. G. Gregor, R. F. Schweitzer, H. W. Hawks, and T. B. Packard.

Cooper and Gregor will instruct the 320-hr. numerical con-

trol course, which will extend over an eight-week period, 40 hours a week, on company time. Trainees will continue at their present rate of pay throughout the training period.

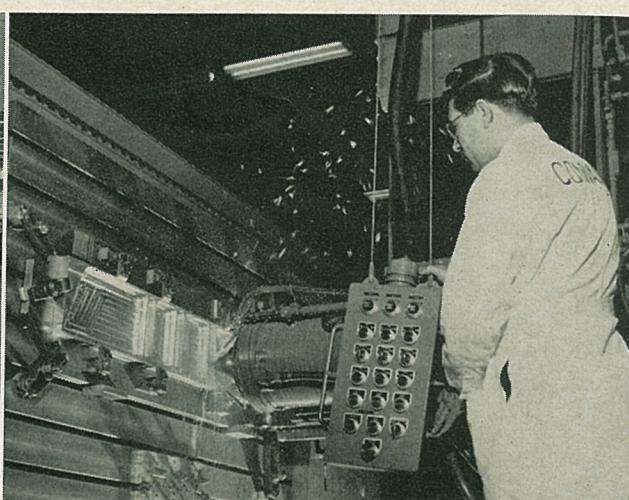
Necessary requirements are: a knowledge of mathematics through trigonometry, one year of high school drafting, two years of aircraft experience in ma-

(Continued on Page 2)

Astro Convairity Edition Created

Effective with this issue of Convairity, a separate edition for Astronautics Division has been created.

The change came about largely as a result of the separation of recreation activities between Astronautics and San Diego Divisions. San Diego CRA affairs will be covered in the San Diego Division edition and Astro CRA affairs in the Astronautics edition.



TAPE CONTROLLED—At left H. G. Cooper, numerical control project engineer, checks manuscript in Convair SD director center. Coded punches on paper tape (arrow) are reproduced on magnetic tape which eventually will give "instructions" to

tooling machines such as William Otto, Dept. 215 assistant foreman at Plant 2, is overseeing at far right. Center: new numerical control programming group (Dept. 600-2), in foreground.

Convair to Train More 'Pioneers' In Automatic Tooling Technique

(Continued from Page 1)
machine shop or tooling, and ability to read blueprints.

A pioneer in the field of automatic tooling, Convair had been investigating the feasibility of tooling by means of numerically-controlled tapes since 1953 with M. C. Copold heading the manufacturing research and development.

Because of increased complexity of designs resulting in greater manufacturing problems, Convair, together with other plants throughout the country, felt the need of a new way to manufacture parts to replace the metal template method.

One of the first aircraft companies to adopt automatic tooling by means of tape, Convair SD now has six profilers and skin mills in operation at Plant 2, turning out parts for the F-106. Three more numerically-controlled drilling and counter bore machines are due to be installed.

Data calculated from engineering drawings is converted by the numerical control group into symbols and codes established as a common "language." Basic data is transferred to key punch cards which are processed into manuscript by the 704 computer.

In Convair's director center

(only one maintained by an aircraft plant on the West Coast) manuscript information is converted into time-controlled continuous electrical signals on paper tape and from there onto the magnetic tape. (Convair SD also processes data for other companies and Convair FW in its director center).

Attached to the automatic tooling machines and played back from the machine control unit, plane parts now can be manufactured in a fraction of the time formerly needed. For example, parts which took eight manhours to make on conventional tooling machines can now be turned out in an hour.

"The revolutionary method reduces the chance of human error, tooling cost, and lead time," said O. W. Sweetland, Plant 2 tooling superintendent.

Application forms and information on the numerical control course, which will probably start the first of next month, are now available at both Convair SD training offices, Bldg. 14, Plant 1, and Room 3-1, Bldg. 2, Plant 2.

Deadline for application at either Plant 1 or Plant 2 training office has been extended to Sept. 12.



COST CUTTER—Big grin on face of Astro's O. H. Johnson might hinge from fact he's saved Convair \$352,315 through suggested utilization of costly electronic cannisters he's shown with.

Astro Reports A Record CIP

A bit of extra effort on the part of a master scheduler has resulted in the largest single dollar savings yet realized at Convair Astronautics.

The savings: \$352,315. The scheduler: O. H. Johnson of manufacturing control (Dept. 220).

Although the Cost Improvement Proposal (CIP) submitted by Johnson dates back to the production planning days at Astro, it was not installed until this summer.

A retired Navy officer, Johnson was accustomed to taking a second look at requests for high-cost items. As he reviewed repeated requests for electronic cannisters for missile components and tests, Johnson noted many similarities in certain items ordered. Despite their small size (two feet high, a foot in diameter,) the cannisters often cost as much as \$45,000 each to build! He reasoned that a select number of these items, made available to various functions on a schedule basis, would cost far less than individual items for each.

He sought and received permission to follow up on his idea, although it was out of his line of responsibility.

This CIP was only one of two accredited to Johnson this year. He is responsible for a \$26,104 savings for an idea involving reuse of certain missile-borne electronic components.

Registration to Open

(Continued from Page 1)
Astronautics personnel may contact W. D. Benham, ext. 620, new Astro site.

Forms signed by department heads and presented at time of registration release students from payment of tuition fees.

Deadline for Astro application is Sept. 5. SD Division applicants will be accepted up to the Sept. 15-17 school registration dates.

Major Highway Construction To Help Solve Traffic Problem

(Continued from Page 1)
Ave.; plus other additions and improvements.

"Your particular area poses some unusual problems," Hall told the Astro representatives. "It includes sections where road construction is the responsibility of city, county and state agencies. Much planning is necessary before final commitments are made."

Inspector Bill Thien of the San Diego police department also revealed some facts. More than 5,000 cars arrive and depart the area in the vicinity of the Astro

plant daily which have no connection with Convair. (Astro now has about 4,000 parking spaces with the majority filled daily. Despite cooperation in attempting to stagger hours, the bulk of these totals enter roads in a two-hour period morning and evening.

"Until our access roads are in better shape, we can only urge caution and patience on the part of each driver," Thien said. "We feel it is much easier to move slowly at a steady pace than to rush ahead, then wait while an accident is being cleared away."

W. E. Bowman, Astro's chief of industrial security, urged the same considerations in clearing company parking lots.

"We have been forced into issuance of traffic citations to drivers who crisscross parking lots or unpaved areas and to those who block normal entrance routes going home," Bowman said.

"Our traffic lines would move much more smoothly if half of our drivers were courteous enough to allow turning cars an opportunity to enter lanes at intervals," he added.

CONVAIR DAUGHTER WINS FIRST PLACE IN STATE CONTEST

A Convair daughter has been named Maid of California for 1958.

Raquel Tejada, 18-year-old daughter of Josephine H. Tejada of Convair Dept. 192 and A. C. Tejada of Astronautics engineering, was crowned by Governor Knight last week in Sacramento.

Raquel, who was entered in the state contest as San Diego's Miss Fairest of the Fair and Miss Con-Tour, was chosen from a field of 44 entries from all sections of the state. She received \$1500 in prizes.

A graduate of La Jolla high school, she plans to enter San Diego State College this fall to continue her studies in dramatics.

E. T. Clare Elected President Of Astro Management Club

E. T. Clare, Astronautics senior project engineer, has been elected president of the new Astronautics Management Club.

Clare's election, as well as that of other officers, was made public last week at a club meeting that had all the earmarks of an Academy Award presentation complete with armed guards and announcements by leading Astro officials. J. V. Kappler, zone manager of the NMA, was installing officer.

Other successful candidates were: I. B. Jenkins, first vice president; D. P. Wright, second vice president; D. F. Folland, recording secretary; L. F. Moeller, financial secretary; and L. W. Kerner, treasurer.

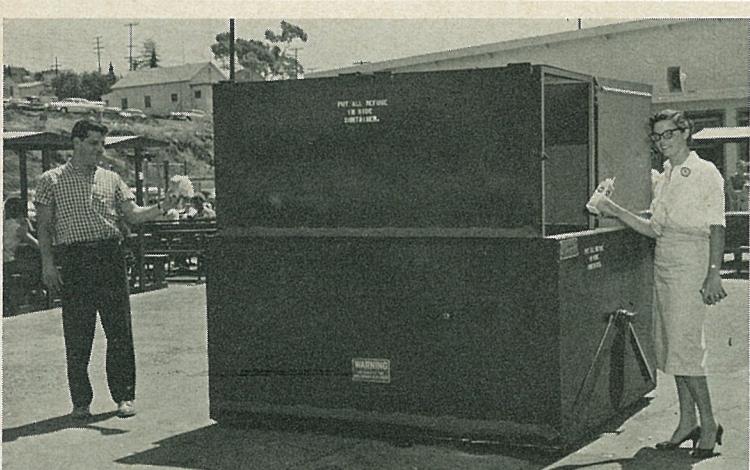
New board of control members are: one-year—R. T. Lyles, R. T.

Blair, J. R. King, L. I. Medlock, and Frank Jenkins; two-year—J. M. Rogers, C. C. Farnsworth, and C. R. Walker; three-year—Earl Boardman and A. H. Gross.

H. L. Ellsworth revealed that more than 800 ballots had been cast in the election with each race very much in doubt.

J. M. Rogers, president pro tem during the organizational period, said, in turning the gavel over to Clare, that club membership now stands at 1,175, more than 90 per cent of the total eligible members.

Chief speaker of the evening was Col. James H. S. Rasmussen, chief of staff of the Strategic Air Command's 1st Missile Division. He filled the speaking engagement for his commanding general, Maj. Gen. David Wade, who was unable to attend.



INTO THE BOX—Vince Paul and Marilyn Willey, both SD Dept. 6, have no trouble disposing of waste cartons and paper in spacious new Dempster box located in Overpass 1 canteen area.

Giant-Size Trash Container Put in Operation At Overpass 1, Replacing Old-Type Boxes

A new look in trash containers has made its appearance in the canteen area east of Convair SD Overpass 1.

In an effort to make the eating area as clean and sanitary as possible the ten old-type trash barrels have been replaced with a Dempster box. Capacity of the huge container, centered in the area, is six cubic yards.

A Dempster Dumpster periodi-

cally picks up the giant box, loading it onto the tractor by a hydraulic mechanism. It is easily emptied at the dump site by being again hydraulically raised for the bottom to automatically drop out.

According to Joe Freedman, Dept. 14-5 foreman, the Overpass 1 area is the only location with space enough to accommodate the new type of container.

Convairity

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Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

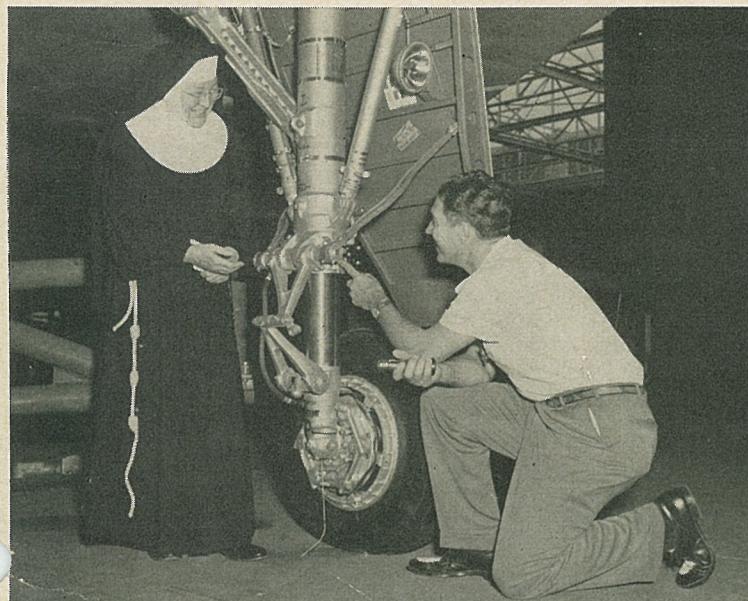
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberly, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weickersheimer, news editor.

FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone Pershing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337. Staff: Betty Lou Nash.



"FLYING NUN" GROUNDED — Nationally known educator Sister Mary Aquinas toured San Diego Plant 2 recently picking up ideas for use in classroom. Explanation of landing gear on F-106 is given by Fred Lay (Dept. 288).

Nun Visits Convair Plants to Gain Fresh Perspective For Teaching Science Classes

Sister Mary Aquinas, OSF, the "Flying Nun" and an educator of national reputation, visited Convair SD Plant 2 recently to gather ideas for more graphic means of teaching school science courses.

The Franciscan sister was flown by the Air Force in a T-33 several years ago in recognition of her efforts in instructing airmen in basic sciences (thereby gaining the "Flying Nun" title).

Although ducking under workstands for an up-close look at the F-106 seemed a long way from a classroom, Sister Aquinas explained that her method of teaching science includes practical demonstrations and simplified versions of certain Convair manufacturing processes which can be reproduced in class.

Sister Aquinas is the founder of the "Experience Program," an educational concept rapidly gaining recognition, that emphasizes practical application of principles immediately after group discussion.

During World War II she taught navigation, meteorology and rules at the Catholic Univer-

sity in Washington, D. C. Majority of her students were airmen.

"The merit of a program of this type was proven then because of the short time factor involved in getting the subject matter across to the students," she said.

Developed even further now, her program is unique because it advocates training in the basic sciences as early as the first grade.

As the tour of Plant 2 progressed to the final F-106 inspection area and the "Flying Nun" got a close look at the finished product she remarked that her next ambition was to break the sound barrier.

"This most likely will prove to be a more difficult ambition to realize," she explained, "because it is impossible to get a pilot's 'G' suit over my habit!"

Sister Aquinas is presently conducting a two-week session for teachers at San Diego College for Women. Her Convair tour was arranged by staff scientist, Mary Romig (Dept. 1-16). She also visited Astronautics Division.



NO GUNS, WILL TRAVEL—This F-102 has been converted into traveling Air Force exhibit.

F-102 No. 12 Grounded Forever; Will Serve as Mobile Exhibit

One of the first F-102s built by Convair SD has left the plant to go into service as an Air Force traveling display.

The F-102, No. 12 to be constructed, was remodeled for its new role at Plant 2 before going on the road the last of August, said F. H. McLaughlin, Plant 2 factory manager.

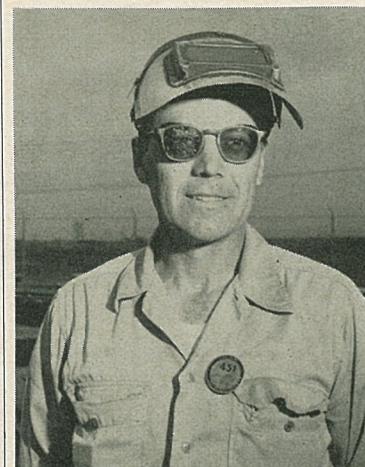
Two trailers transport the "disjointed" plane. Fuselage, half of the wing sections, and landing gear is carried on one. The second trailer load includes the wing outer panels, which are hinged to the other half sections when on display, vertical fins, elevons, rudder, and radome. A platform and two stairways are carried for public access to the plane's interior.

Engine and unnecessary tubing equipment and other accessories were removed. Canopy, instrument panel lights, navigation and clearance lights are mechanized for public demonstration.

Loading and unloading mechanisms, batteries and rectifiers are carried so that four men can completely assemble the plane and ready it in two hours' time.

The traveling F-102 was taken from Convair to Norton AFB,

San Bernardino, Calif., before beginning its cross-country tour. It will make its first appearance at the Antelope Valley Fair this weekend.



AVERTS INJURY—F. E. Quinn of Dept. 451, Astro, models glasses that saved him serious eye injury. Piece of molten slag, struck with hammer following cutting torch operation, stuck to frame of Quinn's glasses, caused them to shatter. Quinn was not hurt.

New Overpass Nearly Ready

All traffic, both north and southbound, will be using the overpass at Washington St., and Highway 101 in SD sometime this week.

The new overpass has been completed two weeks ahead of schedule, said Mark Darrough, resident engineer for the California Division of Highways. Southbound vehicles have been using the overpass since Aug. 11 while northbound traffic has continued to use the detour around the overpass.

The present detour road will be converted to a frontage road serving roadside business. Convair SD cars going north and intending to turn west to Gate 5, Plant 1, will use the frontage road.

The off-ramp road east off the overpass will be opened for use at the same time as the northbound lanes. It will provide access to the frontage road and side streets north of Washington St.

Pile up of traffic in and out of Gate 5 has already been eased in the few weeks that the overpass has been in partial use.

KEITH BLAIR NOW SD ENGINEERING CHIEF LIBRARIAN

Keith G. Blair has been named to the newly-formed post of chief librarian of the Convair SD engineering library effective Aug. 18.

Blair transferred to San Diego Division from Convair Astronautics where he had served as reference librarian the last year and a half.

A graduate of the University of Iowa, he holds a master of library science degree from Columbia University. Before joining Convair he had been reference librarian for the Navy Electronics Laboratory in San Diego for 10 years.

He also had been previously associated with the Maritime Service Library and General Chemical Co. Research Library in New York City and the New York Public Library system.

Barinka to Assume 880 Fuselage Duties

S. J. Barinka, 880 superintendent, took on additional duties as superintendent of the 880 fuselage at Convair effective Aug. 18. A. E. Hill, SD Plant 1 works manager, announced.

Barinka assumes duties formerly performed by J. F. Glenn who left the company to accept the position of factory superintendent at Rohr Aircraft Corp. in Riverside, Calif.

SD Man Proud Owner Of a Woop *Urdzese

How much does a "WOOP *URDZESSE" cost?

According to a deduction on Burt Vanderheyden's (SD Dept. 401) check, a "WOOP *URDZESSE" costs exactly \$3.35.

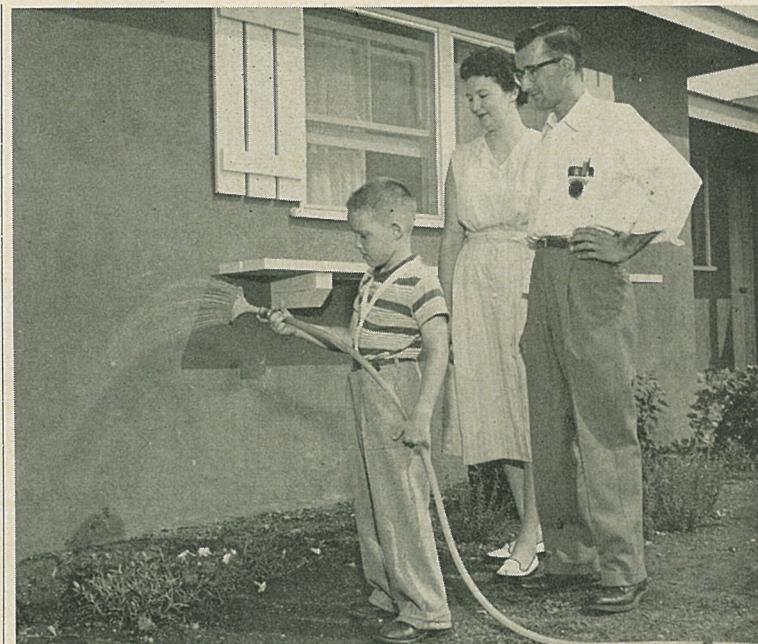
"I've bought a lot of odd things in my life," Vanderheyden muttered, "but I've got to draw the line somewhere." Off he went to payroll department.

A payroll clerk, face slightly red, explained in a low voice, that a "WOOP *URDZESSE" wasn't code for a new deduction but a mashed up listing of a tool purchase that Vanderheyden had made.

Wilkins to Attend Omaha Conference

D. C. Wilkins Jr., industrial relations manager of Convair SD, will be a principal speaker at the Annual Conference of the National Urban League to be held in Omaha, Neb., Sept. 6-11.

A member of the San Diego Urban League Board of Directors and a member of its Industrial Relations Committee, Wilkins will speak on "Tomorrow's Scientists and Technicians."



PROUD—And Mr. and Mrs. Adam Kackstetter of Convair Pomona have a right to be proud of their son Joel, 6, who despite loss of legs is normal, active youngster. He can dance, climb trees, ride tricycle, walk, run...

No Handicap Here

On Artificial Legs, Six-Year-Old Runs, Dances and Climbs Trees

Joel Kackstetter is an active, healthy, well-adjusted six-year-old boy.

He climbs trees, dances, runs and plays with his three brothers and his sister, and will be in the first grade when school starts. He rides a tricycle, dresses him-



ACTIVE — Waste no pity on this handsome lad. He can climb with best in neighborhood.

CERNUTO ATTENDS ANALYST MEETING

Vincent F. Cernuto, chief of manufacturing control at Convair SD, was elected president of the International Business Machines Customer Executive Class held at San Jose, Calif., Aug. 4-8. Attended by officials from all over the United States, the class discussed modern developments in record-keeping and analysis.

self, and does about anything that any other normal six-year-old does.

Unusual? Not at all, unless you consider that Joel has no legs. And few people remember this, after they have been around him for a while.

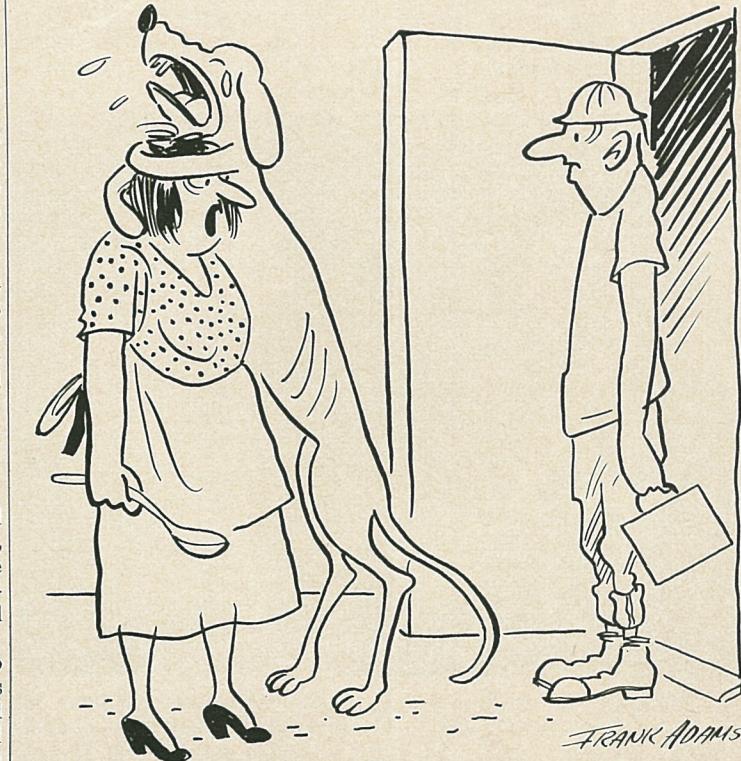
Joel, who is the son of Adam Kackstetter, assistant foreman in Dept. 51 at Convair Pomona, was born with deformed legs. His doctors decided that his legs would never grow normally, so they amputated them both above the knees. For the past three years Joel has worn artificial legs.

Aside from a slightly rolling gait, it is hard to tell that Joel is handicapped. If he falls—and he does occasionally—he grins and picks himself up. He has learned to fall without hurting himself.

One recent fall did cause him some inconvenience, though. He fell out of a fig tree in the Kackstetter back yard, and broke both of his artificial legs. It took several weeks to get replacements.

Joel is slightly larger than the average six-year-old, and he is growing fast. The upper parts of his legs must be replaced about every six months, and the lower parts need replacing about once a year, to keep his legs in proportion to the rest of his body. The uppers require replacement more often so they will fit properly.

"Joel is all boy, he plays hard, and he refuses to be left out of anything the other children are doing," his father said. "We are very proud of the way he has overcome his handicap, and we don't believe he will consider it a handicap when he is grown."





BACKFIRE—Class ducks or takes to cover as Fire Chief A. C. Anderson of Astro gives practical demonstration of what happens when sprinkler hits hot fire.

GOLF DEADLINE FALLS TOMORROW

Tomorrow (Sept. 4) is the final day for registering for the Astronautics monthly golf sweepstakes event slated for Flying Hills Saturday (Sept. 6) and Sunday. Call Bunny, ext. 1111, for starting times.

Log Book Entries

Promotions

ASTRONAUTICS

Promotions and transfers to supervision effective Aug. 18:

Dept. 195-0, Estimating: To estimating supervisor, W. DuMoulin. To spares estimating supervisor, J. E. Thoma.

Dept. 211, Purchasing: To purchasing administrator, C. A. Krueger.

Dept. 220, Manufacturing Control: To mfg. control asst. supervisor, M. J. Marks. To mfg. control foreman, C. E. Fabian. To mfg. control asst. foreman, W. A. Batt, G. E. Davis, J. W. Hare, J. L. Holzbog, L. Kline, C. W. Washam.

Dept. 250-7, Plant Engineering: To asst. foreman Gr. III, V. P. Arnold.

Dept. 280, Inspection: To inspection asst. supervisor, P. W. Haggard, F. E. Hinton Jr.

Dept. 300-0, Product Support: To inspection supervisor Gr. V, H. H. Mishler.

Dept. 731-0, Machine Shop: To foreman Gr. V, H. W. Anderson.

Dept. 732-0, Sheet Metal: To foreman Gr. III, H. L. Williams.

Dept. 733-0, Processing: To asst. foreman Gr. III, J. E. Kemp.

Dept. 758, Major Assembly: To foreman, Gr. III, G. C. Lang. To asst. foreman Gr. III, G. S. Ford.

Dept. 772, Electronic Manufacture & Checkout: To foreman Gr. III, M. J. Torres.

PATRICK AFB

Dept. 571-3, AFMTC Model 7, Operation Support: To foreman Gr. V, W. J. Tartar.

Service Emblems

ASTRONAUTICS

Service emblems due during the period Sept. 1 through Sept. 15.

Twenty-year: Dept. 280-2, Julius Powell.

Fifteen-year: Dept. 193-3, A. C. Campbell; Dept. 211-0, Pearl B. Craigmyle; Dept. 321-5, C. J. Kull; Dept. 595-1, M. L. Streiff; Dept. 700-0, La Joyce C. Redman; Dept. 756-0, G. R. Shirey.

Ten-year: Dept. 195-0, R. W. Lake; Dept. 215-2, D. L. Lewis; Dept. 322-3, H. L. Clower; Dept. 772-0, Ila M. Tescher.

Births

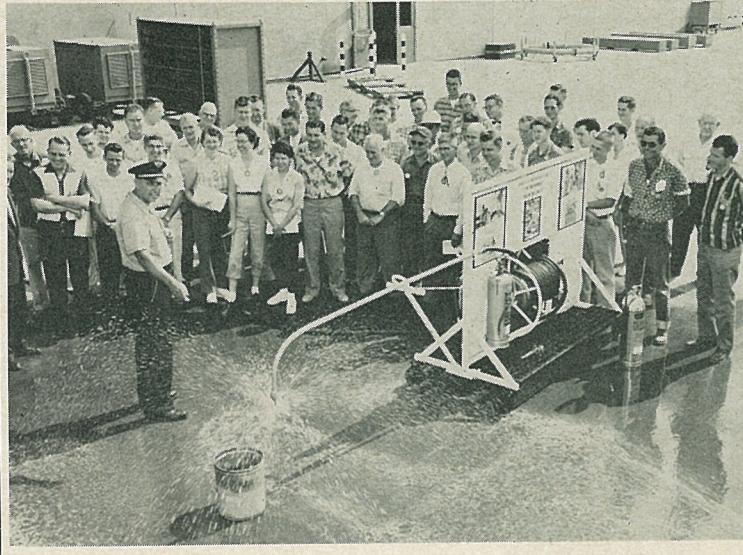
ASTRONAUTICS

WEISSINGER—Son, Stephen Robert, 8 lbs., 9 oz., born July 25 to Mr. and Mrs. R. A. Weissinger, Dept. 120-5.

Veteran Convair Assistant Treasurer Completes 30 Years' Service in Company

R. A. Bussey, Convair's veteran assistant treasurer, celebrated completion of 30 years service with the company last month.

A native of Kenmore, N.Y., Bussey has spent his entire career with Convair, going to work for Consolidated Aircraft in Buffalo, N.Y. as soon as he



A more relaxed view of same class at Astronautics.

Safety Graduates Complete Four-Month Training Course

Convair Astronautics this week welcomed a new group of safety committeemen following graduation last week of the initial training class for this purpose at the new site.

They supplement a small group that has been serving in this capacity.

Astro's safety section initiated the program to provide direct representation in all departments for safety purposes. The graduates of the initial class and those classes to follow will work closely with safety regulations, enforcements and suggestions.

The first class included about 47 men and women from various factory departments. Each attended a four-month training program which included lectures, films, demonstrations and talks.

Following their Aug. 21 graduation, trainees each received safety committeemen's identification cards.

Each department has or is forming its own safety commit-

SD Mfg. Control Of Nat. Loop Plant Champ

Newly crowned champ of Convair SD shop league softball competition is manufacturing control.

A last ditch rally by Dept. 6 (loft), American League champs, fell short by one run in the bottom of the 6th inning and gave the championship to manufacturing control, the National League titleholder.

A walk to Harry Van Buren, combined with single and an error enabled the winners to post the final tally.

In the double elimination tournament preceding the final game, Dept. 6 defeated Dept. 220, the Astro League champs, twice, but lost in turn to manufacturing control twice, 6-1, and 6-5 in the final game.

MORE COLOR PHOTOS OF ATLAS ON SALE

An additional supply of the popular Atlas missile color photographs goes on sale tomorrow (Sept. 4) at Astronautics employee services office, Bldg. 8.

The 16x20-in. reproductions include a takeoff shot of the Atlas and an in-flight photo of the Convair B-58 supersonic bomber. They are sold only in sets for 50 cents per set.

Astro employees at Plant 1, San Diego Division, may obtain the photos at the Employees' Store, across Pacific Highway. Employees working at off-site locations may request them through industrial relations offices.

CRA Art Club Reports Rising Membership

An Art Club at Convair Astronautics reports good turnouts at initial meetings and has scheduled an organizational meeting for 7:30 p.m. Sept. 9 in the Astro cafeteria.

All CRA members interested in various art projects are invited to attend.



NUMBER 25—R. A. Bussey, left, assistant treasurer-insurance for Convair, receives congratulations from President J. V. Naish on completion of 30 years' service. He is 25th employee to receive 30-year emblem.

Tickets to Fashion Show Going on Sale Tomorrow

Latest fashions displayed in an "out-of-this-world" setting will be featured Oct. 2 when CRA at Astronautics stages its first event for women under the title "Missile . . . aneous Fashions."

Tickets for that event go on sale tomorrow (Sept. 4) at employee services, Bldg. 8. They are \$1 each.

Setting for the show, which will feature Astro models, will be the modernistic circular staircase in Bldg. 2. Guests will be seated in the reception center area in front of the interior re-

ception pool.

"Due to limited space within the building, we will have to limit our ticket sales to 450," said Mrs. Jean Bryan, president of the CRA women's council. Thus, tickets will be available on a first-come, first-served basis."

Jeran's will furnish the fashions which will include an around-the-clock selection tailored to the working girl's tastes. Naturally, in keeping with the setting, some special gowns will be included.

Molly Morse will do the commentary.

Ten lucky winners will receive door prizes. Five will be \$20 merchandise certificates. Five others will be tickets good for a \$6 hair styling by Charles Hair Stylists.

Five Years Ago . . .

Following are brief excerpts from Convairity of five years ago:

★ ★ ★

Convair FW employees receive highest award of the American Red Cross for participation in National Defense Blood Program.

* * *

The B-36 in her newest role—as an airborne mother ship and "landing strip" on high for jet fighter planes—is scheduled for a Labor Day weekend demonstration at Dayton, Ohio.

* * *

A monthly "Mr. MacSave-It" award program is inaugurated by Convair SD Management Club.

* * *

Emergency Aid to financially distressed Convair FW families totals \$2,874.50 during first ten weeks of operation of Convair Employees' Con-Trib-Club Emergency Aid Program.

* * *

Preliminary plans for a Convair Pomona Con-Trib-Club are nearing completion.



SHOW WENT ON—During early countdown Aug. 2 for fully powered Atlas at Cape Canaveral, W. W. Withee, right, Astro assistant chief engineer—test, took brief time out to present 20-year pin to Travis Maloy, chief test conductor at AFMTC. Scene is in blockhouse.

Is It News?

Call Convairity!

Astro Signs 128 Bowling Teams; Swing Shift League Organizing

There is no shortage of pin choppers at Convair Astronautics where CRA winter bowling leagues begin rolling next week.

At present 128 teams are signed up. In addition there is a possible swing shift league organizing.

The present total more than doubles last winter's participation and greatly exceeds the teams taking part in summer action just concluded.

All Astro bowling activities are centered at Clairemont Bowl.

On Mondays at 6:30 p.m. eight teams are ready for the Sycamore Canyon mixed league and eight other teams are prepared for the Astro scratch league. At 9 p.m. 16 teams are rolling in a men's handicap league.

On Tuesdays at 6:30 p.m. eight teams are ready for the Sycamore Canyon mixed league and eight other teams are prepared for the Astro scratch league. At 9 p.m. 16 teams are rolling in a men's handicap league.

On Wednesdays at 6:30 p.m. eight teams are ready for the Sycamore Canyon mixed league and eight other teams are prepared for the Astro scratch league. At 9 p.m. 16 teams are rolling in a men's handicap league.

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On Fridays at 6:30 p.m. eight teams are ready for the Sycamore Canyon mixed league and eight other teams are prepared for the Astro scratch league. At 9 p.m. 16 teams are rolling in a men's handicap league.

On Saturdays at 6:30 p.m. eight teams are ready for the Sycamore Canyon mixed league and eight other teams are prepared for the Astro scratch league. At 9 p.m. 16 teams are rolling in a men's handicap league.

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CRA Calendar

(Convair Recreation Association is in the midst of forming a full scale recreation program. Some activities are now in operation. Others are forming. For information about any activity, call CRA headquarters, ext. 1111.)

ART CLUB — Meets at 7:30 p.m. Sept. 3 at Astro cafeteria. Organizational meeting for all members at 7:30 p.m. Sept. 9 at cafeteria.

BASEBALL — Practice sessions 5 p.m. each Thursday at Linda Vista ball park. Players welcome to try out for team.

BRIDGE — Meets second and fourth Thursday at Barcelona Bridge Club, 4th and Juniper Sts. 7:30 p.m. Special beginners' instruction Sept. 9 for 10 weeks, Tuesdays, 7:30 p.m.

GOLF — Sweepstakes at Flying Hills Sept. 6-7. Registration closes Sept. 4. Call ext. 1111 for starting times.

MODEL RAILROAD — Club meetings Fridays 7 p.m., House of Charm, Balboa Park.

RADIO CLUB — Meets Sept. 4, 7:30 p.m. at Astro cafeteria.

RIDING CLUB — Work parties for new ring 9 a.m. to 4 p.m. Sundays at recreation area adjacent to new site. Volunteers welcome.

ROLLER SKATING — Sept. 15 at Skateland, Front and G Sts. between 6:30 and 9:30. Free tickets at CRA office, Bldg. 8.

SQUARE DANCING — New beginner's class starts Sept. 19 at American Legion Hall, 4061 Fairmount.

SWIMMING — Sept. 20, 7 to 9:30 p.m., Mission Beach Plunge. Free tickets at CRA office.

WOMEN'S ACTIVITIES — Fashion Show Oct. 2 at new site. Tickets on sale at CRA office.

(In addition to activities above, the following groups are now forming: Coin Club, Photography Club, Pistol Club, Rockhounds, Snow Ski Club, and Sports Car Club. Call CRA, ext. 1111, if interested in taking part.)

Sycamore Canyon's Picnic to be Sunday

Astronautics employees from the Sycamore Canyon test site are expected to turn out in numbers Sunday (Sept. 7) when their second annual picnic is held at Big Oak Ranch, Dehesa.

Advance ticket sales have indicated this year's outing will likely top the 1,200 attendance mark set last year.

Slated for 11 a.m. until 5 p.m., the affair will feature games, contests, swimming, dancing and a wealth of prizes for all ages.

Planning the 1958 event fell to a committee composed of Jerry Mattson, Dick Moore, Bob Carr, Lorraine Welter, Ben Randolph, Lou Sattler, W. F. McDonald, H. J. McDuffee, J. W. Diczhazy, H. C. Hetrick and H. W. Gillespie.

Gun Club Organizers Call Sept. 10 Meeting

An organizational meeting for the Astronautics Gun Club has been set for 7 p.m. Sept. 10 at the Astro cafeteria. Entrance will be through Gate 4 on west side of cafeteria.

E. L. Johnson, one of the leaders of the group, indicated that those present will help formulate plans for the new group and make some decisions as to what types of events will be held and where.

Husbands and wives are invited, although youngsters under 15 can not be admitted to the plant, Johnson said.

Players Trying Out For Baseball Team

A Convair Astronautics baseball team is now holding regular practice sessions at 5 p.m. each Thursday at Linda Vista ball park in preparation for the coming winter baseball season.

Players interested in trying out for the team are invited to report at one of the practice sessions. Duke Pawlik is acting as manager.

CRA Sports & Recreation Convairity**First All-Astro Square Dancing Class Will Start on Sept. 19**

"Square 'em up," the traditional call to action for square dancers, will ring out for the first time for Convair Astronautics people Sept. 19 when CRA starts an exclusive Astro class for neophyte dancers.

CONVAIR GOLF CLUB MEETING CANCELLED

Cancellation of the Sept. 4 Convair Golf Club meeting has been announced by Secretary Gerry Dix.

Instead, plans are being made for a large turnout for the Oct. 2 meeting to discuss and vote on prospective by-law changes and the 1959 club sweepstakes and tournament schedule.

A Convair Golf Club Sweeps will be held at the Singing Hills course Sept. 20 and 21. SD members can contact Alma at ext. 218 or 382, Plant 2, for starting times. Astro golfers should contact H. V. Purnell, BR-7-8900, ext. 1313.

Astro Sons Survive 58-Mile Boat Trip

A weary but triumphant group of 27 Astro and SD sons returned home a week ago Sunday (Aug. 24) after a 58-mile boat trip down the Merced and San Joaquin rivers.

Snelling, Calif., near Castle AFB, was their departure point. After eight days on the river they were rejoined by the transportation truck at Catfish Landing, 17 miles west of Turlock. Although log jams slowed progress of the four ten-man rubber assault boats, the craft averaged three to ten miles a day, tying up in the afternoons for river bank camps.

Among those accompanying the boys were Dave Otis and Torru Shmizu, both of Astro engineering.

Astro Club Offering Bridge Fundamentals

Astronautics families interested in learning the fundamentals of bridge are being sought by the Astro CRA Bridge Club to fill a new class which starts next Tuesday (Sept. 9).

The Tuesday night sessions will continue at 7:30 each week through a 10-week period at the Barcelona Bridge Club, Fourth and Juniper.

Regular sessions for the club are held at the same time and place on the second and fourth Thursday of each month.



LEADING LINKSMEN — Climax of Astronautics twilight golf league came last week when awards were passed out at special gathering. At left are members of winning Hogan Hotshots (Lee Weikum, Morrie Baxter, Jack Foley and Joe Sheerin). At right are second-place Snake Choppers (John Tannone, Jack Allbright, John Sentovic and Frank Cook). Art King, center, golf commissioner, received special gift.

The weekly Friday night sessions between 8 and 10 will be held at the American Legion Hall, 4061 Fairmount, according to Marty Stutz, veteran CRA square dance leader who is setting up the program for Astro.

Capacity for this type event is 200 persons. No advance registration is necessary. However, students must attend at least one of the first three sessions (Sept. 19 and 26 or Oct. 3) to be included. After that time the class is closed.

Cost per session is only 25 cents each. Instructors are Dotie and Van Van der Walker, veteran teachers and for the past 10 years exclusive instructors for CRA square dancing.

"These classes are tailored to the beginner," Stutz said. "We start by simply walking through each formation. Then we try it to music. As the class advances, so do the instructions."

One night each month is designated "party night." Live musicians are on hand and guest callers invited. Refreshments are served.

Recommended clothing for the classes is casual wear. Women are advised to wear full skirts and low heels, men, sport shirts and comfortable shoes.

Meanwhile, CRA is formulating plans for catering to dancers who have completed initial instruction sessions. Formation of a club for this purpose is under study. More information will be available at a later date.

Hogan Hotshots Golf Champions

The Hogan Hotshots won the Astronautics twilight golf league crown Aug. 19 on the strength of an extra hole victory by Morrie Baxter.

Vacations cut into each of the four-man teams so that only three golfers took part for each team in the playoffs. The Hotshots fielded Baxter, Jack Foley and Joe Sheerin. The Snake Choppers sent Jack Allbright, John Sentovic and John Tannone into action.

Sentovic beat Sheerin and Foley topped Tannone in the regulation nine holes. Baxter and Allbright finished deadlocked with Baxter firing an even par five on the extra hole for the margin of victory.

The finalists received trophies at a special presentation last week at the Astro cafeteria.

The league, which has run throughout the summer at Torrey Pines, drew over 100 players in two brackets.



JOHNNY APPLESEEDS — Over past month, up to 500 volunteers have turned out in new Astronautics recreation area to help set out 360 baby trees. During coming weeks more volunteers will be needed to prepare area and plant some 10 acres in grass.

More Than 500 Volunteers Help Plant Trees at New CRA Area

This week they'll trade their shovels for rakes!

That was the word from over 500 volunteers who have turned out in their spare hours, mostly on weekends, to help develop the new CRA recreational area adjacent to the Astronautics plant.

To date, they have planted 360 small trees; dug and poured the foundations for two buildings; hauled several thousand feet of salvaged lumber and pipe and erected a Little League ball park.

Latest task to be completed was the planting of the future shade trees for the area. Saturday and Sunday (Aug. 23 and 24) some 217 volunteers turned out. On other weekends the total force has been smaller but no less enthusiastic.

Attention swings this week to preparing 10 acres of the 27 available for planting of grass.

Art King Will Play In State Amateur

Art King, CRA golf commissioner at Astronautics and one of San Diego's top amateurs, departs next week to participate in the State Amateur golf tournament beginning Sept. 15 at Pebble Beach.

King, who plays to a one-stroke handicap, first goes into a 36-hole qualifying round at Pebble Beach and Cypress Point. California amateurs with handicaps of five strokes or less are eligible to participate.

King won the San Diego county championship twice and the city crown on three occasions.

Astro's Baird Now In Mfg. Development

Transfer of manufacturing process specifications operations from process control to manufacturing development department, Dept. 290, has been announced at Convair Astronautics by V. G. Mellquist, manager of manufacturing development.

N. D. Baird, formerly of process control, has assumed responsibility for this function under the technical services section of Dept. 290. L. S. Franklin has taken over Baird's former duties in process control.

MODEL RAILROAD FANS INVITED

Astronautics employees interested in model railroading are invited to attend weekly sessions held by the San Diego Model Railroad Club each Friday at 7 p.m. in the House of Charm, Balboa Park.

Volunteers will remove and haul away rocks in the area, rake it level, then spread mixtures of top soil and fertilizer. Later comes the grass seeds.

Work parties are slated for Saturday (Sept. 6) and Sunday. CRA suggests two work shifts each day, 8 to noon and 1 to 5. However, those who can work longer or shorter periods are welcome either day.

Volunteers are urged to bring rakes and wheel barrows, if they have them.

Art Munson, CRA president, had this to say about the area:

"It is really gratifying to see so many people on hand to help. We truly appreciate it and so will every Convair family once the area is ready for mass use."

"We urge those who have never seen the area to drive by and take a look. Then turn out and help, if you can," Munson added.

Information about the project is available by contacting CRA at ext. 1111.

Riding Club Proposes CRA Ring Project

Convair Astronautics Riding Club is in the midst of a project to build a new riding ring on the CRA property adjacent to the new plant.

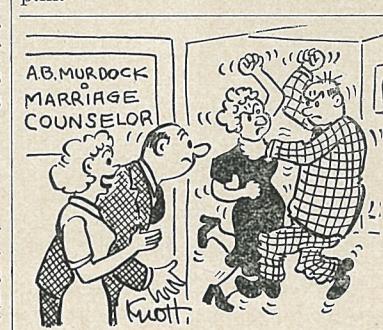
Volunteers are working from 9 a.m. until 4 p.m. each Sunday on the project. At the same time discussions are continuing as to a regular routine for the group to follow later.

Swimming, Skating Tickets Available

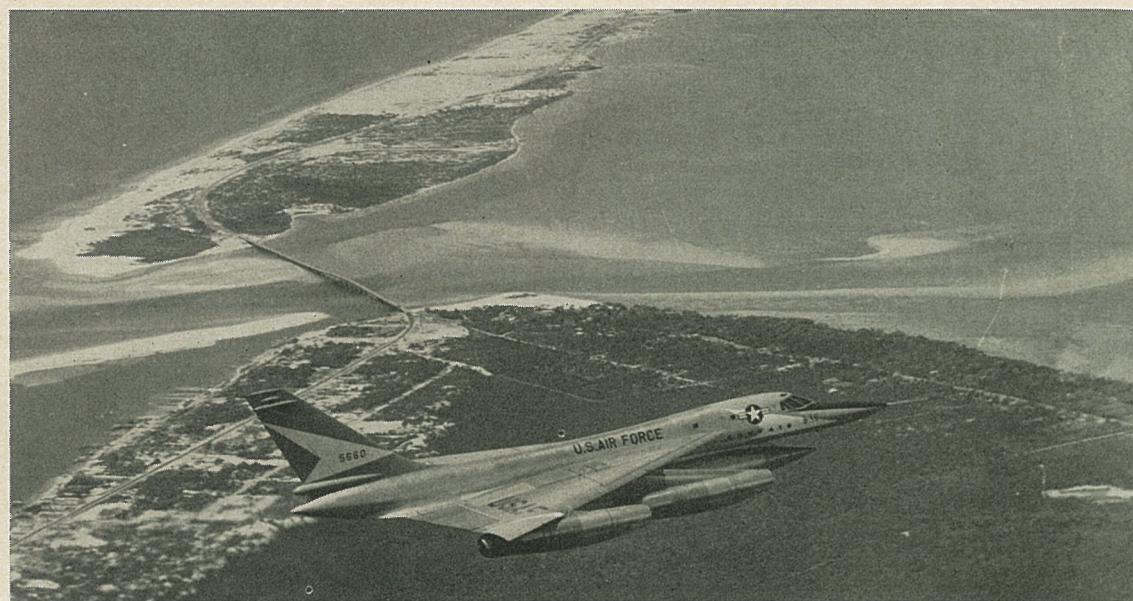
Free tickets for CRA-sponsored swimming and roller skating sessions are now available at employee services, Bldg. 8, at the new site.

Next swim night at Mission Beach Plunge is Sept. 20. Hours are 7 to 9:30 p.m.

Skating enthusiasts will gather at Skateland, Front and G Sts., Sept. 15. Hours are 6:30 to 9:30 p.m.



"They're your next challenge, Mr. Murdock."



IT'S COOL IN FLORIDA—B-58 breezes over Florida coast en route to Eglin AFB for testing in USAF Climatic Laboratory. Airplane will be subjected to temperatures far below freezing. Later it will get reverse treatment in laboratory oven capable of 165-plus degrees F.



"REAL COOL"—B-58 bombing and navigation system must operate despite extreme cold. Sperry engineers, dressed for weather, run a check.

X-Rays Used to Guard Against Possibility of Hidden Flaws

Convair-built planes at San Diego are getting a thorough going over with an X-ray "eye."

A new portable X-ray tube is now in use on F-106s and 880s in the minute search for possible flaws which can not be detected by visual observation. By use of the X-ray tube, inspectors can now "see" into inaccessible wing and fuselage locations.

Although in use in the aircraft industry for a number of years, portable X-ray equipment has just recently been put into use at Convair SD plants. Heretofore, X-ray inspection had been done in lead-lined enclosures which limited the size of parts which could be inspected.

At the present time, X-ray operations are scheduled for off-shift times, nights and weekends, as much as possible.

According to Convair's medical department, which has set up procedures to safeguard workers in the areas, X-ray is no more hazardous than certain solvents and paints commonly used in the shop, if recommended precautions are observed.

During X-ray inspections, all workers except trained technicians

'Missile Space System' Guides B-58 to Target

Engineers literally "reached into space" to borrow a guidance system designed to provide accurate navigation for Convair's supersonic B-58 Hustler. The system is similar to that used by long-range missiles.

It is a doppler-inertial primary navigation system developed and now being mass-produced for Convair by Sperry Gyroscope Co. at Great Neck, New York. It is designed to precisely navigate the Hustler to any spot in the world, and to control pinpoint release of the B-58's 50-foot pod.

The system is engineered to be 10 times as accurate as present operational systems. It requires 37 per cent less space and weighs 20 per cent less than present systems.

Convair Fort Worth's flight

test department is now testing the system in the B-58. N. B. Robbins, manager of the B-58 flight test program, said the system looks promising in flight tests, though much work remains to be done.

E. L. Schultz, project engineer, is team captain for the tests, and C. L. Harrison, senior flight test engineer, is deputy team captain.

Harrison explained that the inertial guidance system "has a reference to space rather than to earth."

Convair wrote the specifications for the system, and Sperry took on the job of designing and building it.

Now, in the flight test program, engineers are determining how effectively the system works. And, Harrison said, at this point in the program, the system looks good.

Missiles use inertial guidance for a matter of minutes to establish a ballistic trajectory—but inertial guidance is designed to guide the B-58 for hours, take it anywhere in the world, release the pod, and return it accurately to base.

The system is based on the physical law of inertia, which states that a moving object tends to travel in a straight line unless acted upon by outside force. Gyroscopes and accelerometers are used in concert to keep the plane on course by determining changes in direction and speed.

Convair's Hustler often has been described as a "missile with men in it." The plane's range, speed, target accuracy, and service ceiling place it in the "near-missile" category.

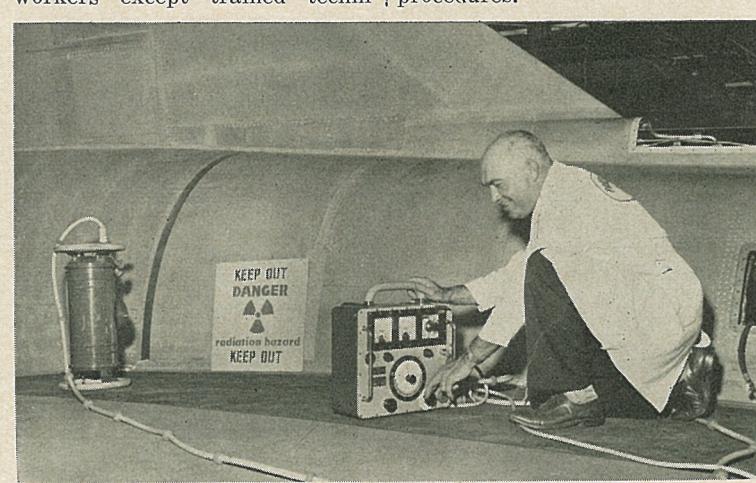
Unlike a missile, however, the Hustler's three-man crew gives it human, decision-making intelligence. The crew monitors the guidance system, can "call-off" a mission at the last moment, re-establish targets or bombing techniques.

Swissair, SAS See Jet Line

Delegations from Swissair and SAS spent most of last week at Convair San Diego for briefing on Convair jet transports.

The SAS group of five was headed by Birger Holmer, director of product and development engineering. Ernst Bertoni, assistant to the vice president of planning and research, headed Swissair's delegation of six. Also taking part in the tour were representatives from General Electric's aircraft gas turbine division, including Neil Burgess, manager of engine products, and Vern Albert, west coast representative.

The visitors were briefed on all phases of jet transport manufacture and operation by various Convair teams from sales, flight, engineering and the factory. J. G. Zevely, director of contracts and commercial sales, was the official host representing Convair.



SEEING "EYE"—L. J. Gregg (Dept. 197-4), X-ray technician, inspects F-106 wing interior at Convair SD Plant 2 by means of portable X-ray tube. Danger signs warn workers away from area during operations.

Atlas Nose Cone Blunt For Dive Back to Earth

Facts about the "business end" of the nation's first intercontinental ballistics missile, the Convair-built Atlas, have been revealed for the first time.

The nose cone, or "re-entry vehicle" as it is sometimes called, carries the Atlas' warhead. It breaks away from the airframe at a predetermined point in flight to become a free flying object, following a ballistic trajectory to its target.

Published pictures of the Atlas show it to have a very blunt nose in direct contrast to the needle nosed tips of shorter range missiles. This design, which is referred to as a "heat sink" type, gives the Atlas nose a high drag to weight ratio which does much to combat re-entry heat as the cone plummets from great heights into the earth's atmosphere.

General Electric, builder of the Atlas' ground based guidance unit, also builds the nose cones. Information about the cones came in a joint GE-Air Force release.

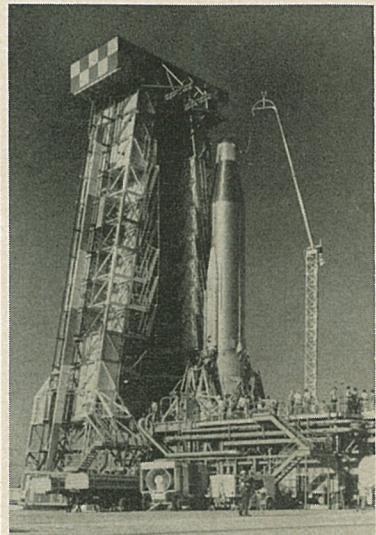
One unusual factor made public is that the Atlas and the Thor intermediate range ballistic missile use the same nose cone. Only minor alterations are necessary in exchanging from one to the other. In fact, the Thor missile program was developed around the Atlas nose cone. Resulting was a single development program which provided warheads for two major weapons.

Atlas nose cones are turned out by GE's Missile and Ordnance Systems Department at

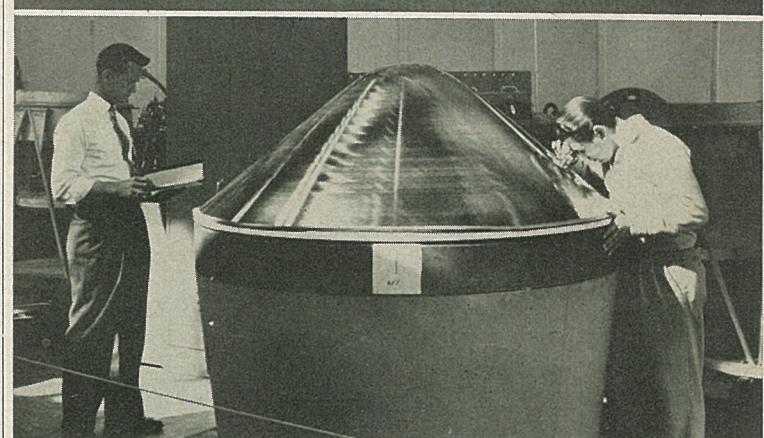
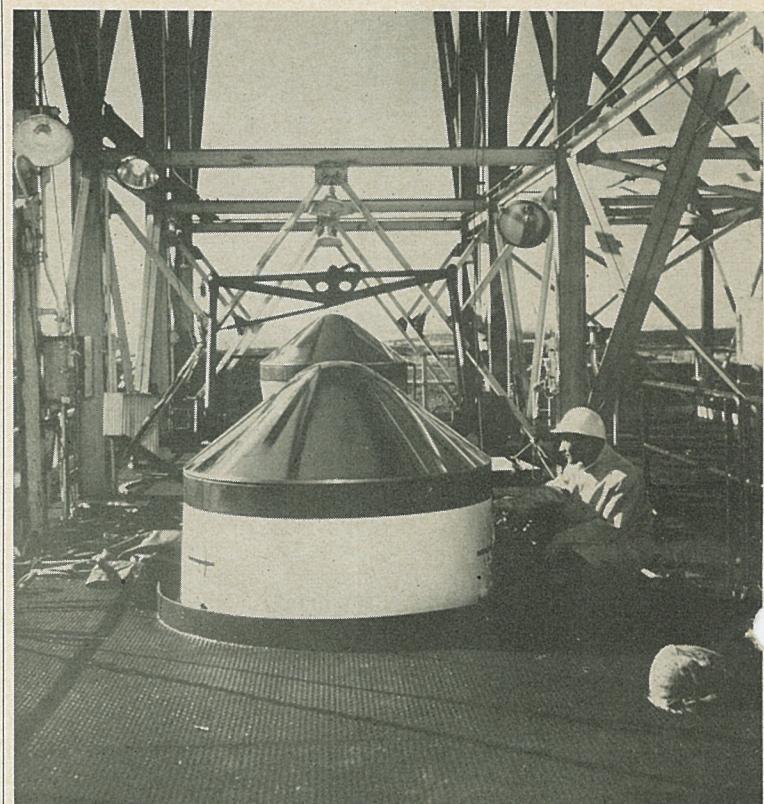
Burlington, Vt. GE has also been asked to provide operational nose cones.

First meeting of missile and nose cone takes place at the Air Force Missile Test Center in Florida. While Convair Astronautics men are preparing the Atlas for firing, GE technicians ready the cone. Each is carefully checked for possible pits or scratches in the highly polished cone shield. They call it "pit pitting." Then instrumentation within the cone, which provides stability and control once the separation from the airframe occurs, is carefully checked for "bugs."

As a safety precaution, missiles ready for firing are assigned two nose cones. One is known as the "prime," the other as a "back-up." Should the prime show signs of "bugs," it is replaced by the back-up.



BEFORE TAKEOFF—Up until last instant of launching Atlas missile, gooseneck tower shown at right carries power and instrumentation connections to nose cone. Photo was at time of full-power flight last month that took missile 2,500 miles plus.



ATLAS NOSES—Top photo: nose cone is readied for flight at Cape Canaveral as monitor guards against such hazards as power failure. Standby cone in background is also made ready. It can serve as last-minute spare. Lower photo: this is "pit-potting" nose cone to assure highly-polished surface has made delivery to Cape Canaveral undamaged.



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Convair Division of General Dynamics Corporation.

Convairity

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SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

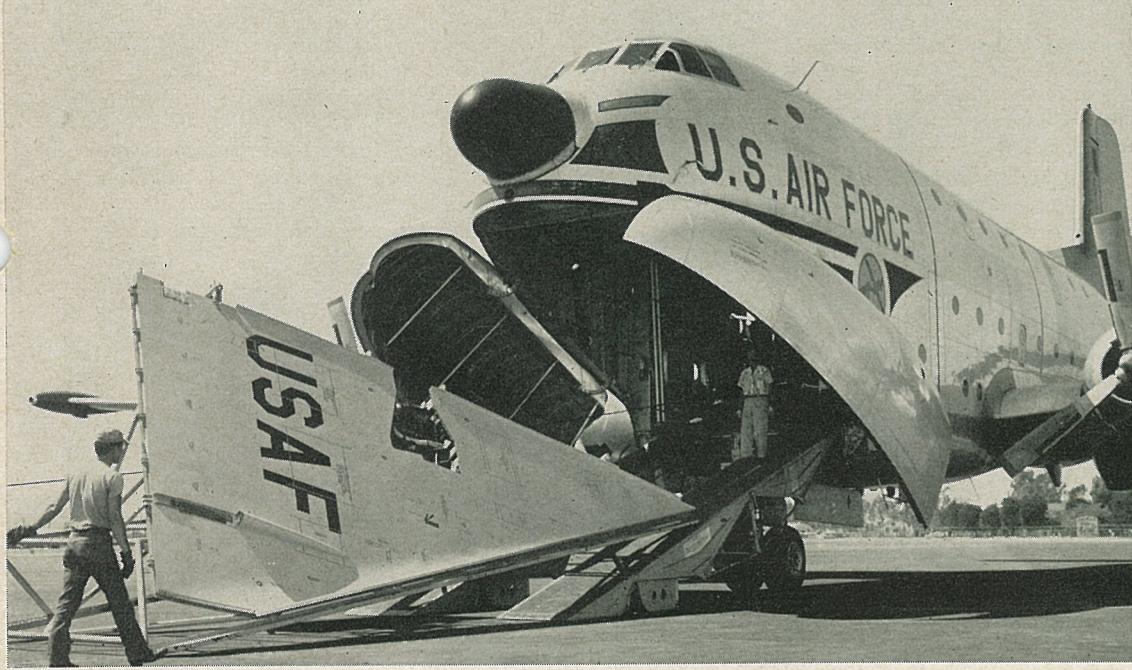
Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

DAINGERFIELD AND FORT WORTH, TEXAS



WINGING AWAY—Easily recognizable in new-type metal container, one of two F-102 wings is towed into AF Globemaster at Convair SD in preparation for speedy cross-country flight to eastern Air Force base.

Fellows Named To Astro Post

Several new assignments and the shifting of responsibilities within Convair Astronautics' purchasing department have been announced by C. F. Uhden, manager of material.

In a new assignment is Edward Fellows Jr. who became general purchasing agent with responsibility for all purchasing functions. W. S. Tucker becomes a purchasing agent for procurement of facilities, test support equipment and research and special projects.



Edw. Fellows

In addition, J. B. Gerding is now buying supervisor for hydraulic and pneumatic activities; G. W. Cowan is buying supervisor for outside production; F. G. Blakefield is buying supervisor for supplies; and D. S. Stone becomes purchasing services as-

(Continued on Page 2)

F-102 Wings Flown East Inside Big AF Transport

Two F-102 wings flew from Convair SD recently on one of the fastest trips "unattached" delta wings had ever made—deep in the belly of an AF Globemaster.

The Sept. 16 shipment of two F-102 wings, tagged for Marietta AFB, Middletown, Pa., was the first time that a pair of the 29-ft. wings had been shipped by air. One wing went from Convair SD to Kelly AFB at San Antonio, Texas, on Aug. 18 as a trial run.

The new method of shipping F-102 wing replacements by huge C-124 transports from Convair SD to AF bases throughout the country is solving transportation problems for both company and AF personnel.

New-type metal containers are furnished by the Air Force to make possible the hauling of two of the wings, end to end, in a Globemaster, eliminating the former transportation method by flatcar.

The cross-country flight time is 12 hours; the trip by rail takes two or three weeks.

The wings, placed on end on

the railway cars, loomed so high, that it was often necessary to specially route them to obtain load clearance under bridges and trestles across the country.

Besides the long trip, the involved and time-consuming job of packing the wings in huge plywood crates and firmly balancing them on the cars has been eliminated. Instead of the three days formerly needed, the entire operation took less than two hours from the time the wings were picked up at Plant 2, bolted into the special containers, and loaded into the Globemaster at the flight field.

The plane came equipped with special winches to tow the wings inside with a minimum of effort.

Loading was done by SD transportation personnel under R. M. Montgomery, general foreman, and shipping activities were supervised by Glenn Egbert, Dept. 14-4 supervisor.

Vice President Nixon Expected at Astro

Vice President Richard M. Nixon was a scheduled visitor for Convair Astronautics today (Oct. 1).

Nixon and party were slated to meet briefly with Convair President J. V. Naish, Astro Manager J. R. Dempsey, and other ranking company officials before touring the Astro plant.

Renovation Work on Two Bldg. 19 Floors Will Be Complete in Oct.

Renovation of the 4th and 5th floors of Convair's General Office building (Bldg. 19) at San Diego was begun Sept. 1 with completion slated for the middle of this month.

James Stewart Co., in charge of construction work, said that 5th floor remodeling will probably be finished this week.

Robert Smith Astro Chief of Training

Robert F. Smith has assumed duties as chief of training for Convair Astronautics, according to M. V. Wisdom, Astro industrial relations manager.

Although born in Brooklyn,

Smith has spent most of his life in Southern California. He attended grade and high schools in San Diego and later San Diego State and Arizona State Teachers. He holds two degrees (BA & BS) from the University of Southern California and one (MBA) from UCLA.

(Continued on Page 2)



R. F. Smith

ATLAS IN TEXAS—Atlas missile paid visit to Convair Fort Worth last month, coincident with its unveiling at Air Force Association convention in Dallas. Here it is shown alongside B-58.

SD Division Pays \$40,000 in ES Cash Since Jan.

Approximately \$40,000 in Employee Suggestion awards has been paid to date in 1958 in San Diego Division, E. E. Hartzler, cost reduction supervisor, reported this week.

The awards involve almost 1,000 cost-reducing ideas which have been put into effect during the first nine months of the year. The average award has been \$39, a couple of dollars more than the average last year.

"Although the bulk volume of Employee Suggestions submitted so far is not as great as for the same period in 1957, the quality of the successful ones has been a bit higher," Hartzler commented. "The percentage of success is about normal, 21 per cent, or about one acceptance in every five submitted."

The highest single award is that paid to D. P. Jump of Palmdale Dept. 321 who collected \$910.50, half of which was paid last year and the balance this year following the six-month evaluation period.

Runner-up to Jump is B. J. Jarrell of Dept. 267 with an award of \$834.70, half of which has been paid with more to come after evaluation.

Among the girls, Lorraine Clark of SD Dept. 230 is out in front, having collected a total of \$577.20 on her ES, with prospects of still more to come. Evelyn B. Kellogg of Dept. 192 is in second place in "cash collected." She has received half of her ES award of \$699.10 and the exact amount of the next payment will depend upon a December evaluation.

Communication Dept. Assignments Made

Several temporary assignments within Astronautics' communication department have been announced by C. T. Newton, communication manager.

Jack Kirby of Astro's operations at the Air Force Missile Test Center in Florida is filling in for Ray Blair in community relations while the latter is on a leave of absence.

Monte J. Curry, chief of art direction, is on special assignment in Newton's office. Stanley B. Hodge is acting chief.

Total savings to Convair SD thus far in 1958 as a result of ESs was estimated by Hartzler at \$330,000. This means about \$11.50 for each individual on the division payroll, using average hourly employment during the period.

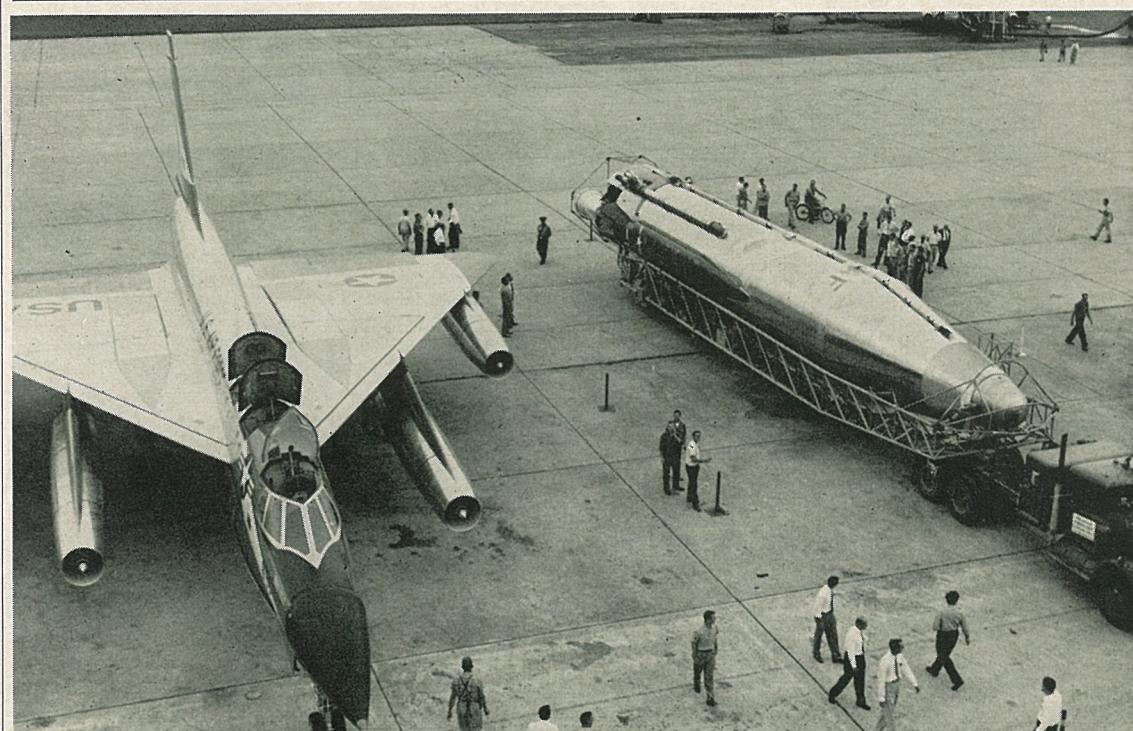
Con-Trib-Club's Gifts For Sept. Nearly \$50,000

San Diego Division's Con-Trib-Club during September approved donations totaling \$49,890. Benefiting were approximately 35 different charities, institutions or groups in the San Diego and Antelope Valley areas.

Of the total, \$10,220 was earmarked for Antelope Valley, supplementing an even \$5,000 in donations approved during August for that area.

Keith Sears, Con-Trib-Club secretary, reported gifts in the SD area as follows: \$3,600 distributed among Boys Clubs at Carlsbad, Chula Vista, Clairemont, Escondido, Linda Vista, National City, Oceanside and San Diego; \$5,000 to San Diego Boy Scouts; \$2,500 to Camp Fire Girls; \$5,000 to Girl Scouts; \$500 each to San Diego Girls Club and National City Girls Club; \$300 to Encinitas Youth Recreational Committee; \$5,000 distributed among seven branches of YMCA; \$600 to Crossroads Foundation; \$2,500 to United Cerebral Palsy Foundation (Sunnyside Facility); \$1,000 to Vauclain Home and \$5,000 to Edgemore Geriatric Hospital (both part of San Diego County Hospital); \$3,000 to Neighborhood House; \$1,170 to Family Service Association; \$500 to Traveler's Aid; \$500 to YWCA; \$2,500 to Sheltered Workshops; \$500 to Alpine Youth Center.

September donations in Antelope Valley included: \$4,805 to the South Antelope Valley Community Chest and \$2,115 to the North Antelope Valley Chest; \$1,500 to the Antelope Valley Hospital; \$600 to the Los Angeles County, Bureau of Public Assistance; \$200 to West Side (Continued on Page 2)



Astro's Airlift Now Operating From Montgomery, Near Plant

Convair Astronautics' airlift service to Vandenberg Air Force Base (formerly Cooke AFB) and the Missile Static Test Site (formerly ERB) is now operating five days per week from Montgomery Field.

On Mondays and Thursdays a single flight departs at 8:30 a.m. and returns at 11 a.m. Flying time between San Diego and Santa Maria is approximately one and one-half hours.

On Tuesdays, Wednesdays and Fridays two trips are made daily. They depart at 8:30 a.m. and 2:30 p.m. Returns are at 11 a.m. and 5 p.m.

The service to MSTS departs San Diego at 8 a.m. and 4 p.m., returning at 9:15 a.m. and 5:15 p.m.

San Diego departures are from Montgomery Field's terminal

building with transportation leaving Astro's transportation dispatch office (Bldg. 6) 30 minutes before plane time.

Astro also continues to utilize a C-118 non-stop to Patrick AFB, Fla. It departs Lindbergh Field at 6:50 p.m. Sunday, Tuesday and Friday, returning the following day.

Reservations for any of these flights must be made in advance by calling ext. 636. At that time the traveler must supply his department and clock number as well as travel order number and person to be contacted at his destination.

Information on return flights is available at Vandenberg through Audrey Winter at WA-5-8651, ext. 5237; at MSTS through Martin Swaim at 86661 or 85601; and AFMTC through Donna Peer at Cocoa Beach 3820.

Hours For Bus Link Changed

New hours for the bus service linking Astronautics and San Diego Division are now in effect, according to John C. Ruzich, chief of stores and traffic.

Departures from Astronautics are now on the half-hour (beginning with 7:30 a.m.). From Plant 1 departures are on the hour (beginning at 8 a.m.). Last service is at 3:30 and 4 p.m. through the week and 2:30 and 3 p.m. on Saturdays.

Other schedules include:

MALLEN BLDG.: From Astro on the hour in the mornings, return on the half-hour. Afternoon runs begin at 12:45 and continue at one-hour intervals. Returns are from 1:15 p.m. at the same interval.

SYCAMORE CANYON: From Astro on the hour in the mornings and at one-hour intervals from 12:45 p.m. From Sycamore on the half-hour in mornings and at one-hour intervals from 12:15 p.m.

WESTGATE WAREHOUSE: Leave Astro on two-hour intervals from 7:30 a.m. Return at 8:30, 10 and noon. Afternoon runs at 1:15 and 2:15, returns at 1:45 and 2:45. First morning run stops at Plant 1, last return trip in day also is via Plant 1.

MALLEN BLDG. TO BARNARD SCHOOL: From Mallen Bldg. on half-hour in the mornings with returns on the hour. Afternoon at one-hour intervals from Mallen at 1:15 and Barnard School at 1:45 p.m.

POINT LOMA: Morning runs from Astro at 7:45, 9:05 and 10:25, returns at 8:25, 9:45 and 10:05. Afternoon outbound at 12:20, 1:40 and 3, returns at 1, 2:20 and 3:40.

All buses depart the Astro plant from the northwest corner of Bldg. 5.

Fellows Named To Astro Post

(Continued from Page 1)
sistant supervisor.

Responsibility changes include moving of major electrical activities under J. C. Kowalsky to the section headed by C. C. Farnsworth, purchasing agent, and the outside production group under Cowan to the section directed by C. T. Talbott, purchasing agent.

Fellows, a native of Milwaukee and former director of purchasing of the Heil Co. of that city, joined Convair in 1954 in material. He became purchasing service administrator in 1954 and a purchasing agent in 1956, transferring to Astronautics in the same capacity.

Tucker was born in Norfolk, Va. and attended secondary schools in San Diego. He attended San Diego State College and William and Mary, coming to Convair in 1941 as a Rockwell operator. He held numerous jobs in inspection, and tool planning before shifting to subcontracts in 1952. He has held several supervisory position in material and subcontracts and was named a buying supervisor in 1955.

Robert Smith Astro Chief of Training

(Continued from Page 1)
Smith came to Astro in August as an assistant to Wisdom.

Smith has devoted the past decade to educational work in the San Diego area. He is a radio announcer and public speaker; a teacher in secondary schools and colleges; former training director at Ryan; a former Navy information officer; and a management education consultant.

During recent years he has studied under a Ford Foundation grant at UCLA while serving in that school's Institute of Industrial Relations as an administrator. He has been a consultant with the Air Force on education matters as well as for such firms as Paper Mate Pen Co., Beckman Instruments and others.



POLICY MAKERS — This is Convair Astronautics Employees' Con-Trib-Club Committee. Group will direct all Con-Trib activities. Left to right: Maynard Bjarstrom (Mgt. Club); Peggy Collier (IAM); D. H. McCoy (Convair); Joe Frivalsky (Convair); W. J. Dawsey (EAA); J. R. Mitchell (Convair); L. W. Janson (EAA); Harry M. Black (IAM); C. A. Honeycombe (IBEW); and I. B. Jenkins (Mgt. Club).

Astronautics Creates its Own Con-Trib-Club Organization

Convair Astronautics' Employees' Con-Trib-Club Committee is winding up preliminary work involved in setting up its independent operation and considering possible contributions to worthy charities on behalf of its members.

The committee, composed of representatives of labor unions, the Management Club and Convair, has been meeting weekly since late July. They have laid ground rules, discussed support of various charities and established disbursement procedures.

"We are currently studying requests for aid from various charities and should be ready to announce initial contributions soon," said Dick Mitchell, committee chairman.

Prior to August, Con-Trib pledges for Astro members were made through the San Diego Division committee. At that time a break was effected and Astro received \$29,949.85, plus \$7,794.54 to set up an Emergency Aid fund. These totals represented a percentage of funds on hand based on population. Further funds have been added to these totals through payroll deductions in the meanwhile.

One of the major problems facing the committee involves policies concerning personnel at off-site locations. This was decided:

Continue an arrangement at AFMTC in Florida through which a committee there makes recommendations to the central committee for action;

Set up a similar arrangement for those employees assigned to Vandenberg (Cooke) AFB in California; and

Support the operations of a joint Antelope Valley Con-Trib group through which Missile Static Test Site (formerly ERB) employees make contributions in

Convairity Boosts 600 Speed—And How!

Transposition of a decimal in numbers describing the speed of the forthcoming Convair jet 600, in a story appearing in Convairity's SD, Astro and AV editions of Sept. 17, must have given some of its designers quite a turn.

The speed was set at "Mach. 90" when, of course, it should have been Mach .90.

Someone figured out that Mach. 90 gave the 600 a speed of 67,000 mph. (By heavens, that ought to make American Air Lines happy!)

Convair Travelers In Brussels Today

A party of 94 Convair people were in Belgium today, viewing the World's Fair at Brussels.

It is their third day of travel abroad. They left New York by KLM for London last Saturday for the three-week tour which will take them through Germany, Switzerland, Italy and France before their return Oct. 18. The group includes 25 from Pomona, 31 from San Diego and 38 from Astro.

conjunction with other Convair employees in that area.

In each case all money originating in off-site locations will be returned to the area for disbursement.

However, that portion of contributions earmarked for Emergency Aid will be banked in a central fund but will be available to all.

Con-Trib-Club Committee members at Astro include: C. A. Honeycombe (Dept. 250), representing the International Brotherhood of Electrical Workers; Peggy Collier (Dept. 211) and Harry M. Black (Dept. 451), representing the International Association of Machinists; Maynard Bjarstrom (Dept. 771) and I. B. Jenkins (Dept. 300), representing the Management Club; D. H. McCoy (Dept. 521), Mitchell (Dept. 130) and Joe Frivalsky (Dept. 130), representing Convair; and W. J. Dawsey (Dept. 521) and L. W. Janson (Dept. 535), representing the Engineers and Architects Association.

Dawsey is vice chairman of the committee; Janson, treasurer; and Frivalsky, secretary.

More Than 10 Make Sports Car Jaunt

At least 10 cars were definite starters in the Convair Astronautics Sports Car Club's "Tour to Yuma" held over the past weekend (Sept. 26-27).

Advance hotel reservations showed this many participants, while others were expected to join the group in Yuma.

Regular Sports Car Club meetings are held at 7:30 p.m. on the second and fourth Thursdays of each month at Astro cafeteria.

IAS Friday Will Hold Historical Meeting

Convair people are invited to the annual historical meeting and installation of officers of the San Diego section of IAS this Friday (Oct. 3).

Social hour will be at 6 p.m. at the San Diego Speedboat Club with a buffet dinner in the IAS Bldg. at 7. Ladies and guests are invited. Price of dinner is \$2.50. Reservations may be made before noon tomorrow (Oct. 2) by calling CY-5-5119.

New Members Join Women's Council

Two new members have been added to the Convair Astronautics CRA Women's Council, according to Jean Bryan, president.

They are: Betty Hanavan of Dept. 130 and Joan Neff of Dept. 310.

Other members of the council are Eileen Tidwell, Jean Cassidy, Edith Larson, Elaine Jorgenson and Mrs. Bryan.

Full House Expected At Astro Style Show

A capacity crowd of some 450 persons is expected tomorrow night (Oct. 2) when Astro's CRA stages a fashion show for women.

The 8 p.m. event in Bldg. 2 will be followed by refreshments at the cafeteria.

Convairity

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Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weckersheimer, news editor.

FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone PErsing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr, Horace A. Baker Jr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337.

Staff: Betty Lou Nash.



WET LANDINGS—Convair FW flight crewmen recently demonstrated water landing techniques in Ridglea swimming pool. In top photo, Val Prahl, test flight engineer, holds nose as he goes off high board. Center: G. I. Davis, pilot, helps D. J. Mayhew, test flight engineer, ashore. Below: H. A. Cornell explains underwater breathing mechanism to H. T. Hargis, flight test engineer.

Flight Crewmen Dunked In Wet Landing Practice

Thirty-one Convair Fort Worth flight crewmen celebrated a late "splash day" when they simulated parachute jumps from the high board of the Ridglea swimming pool as a part of emergency indoctrination.

"Half of all those connected with flight have made the jump," engineering test pilot G. I. Davis said. "The others will probably make it sometime in the near future."

The men were required to jump from the high board fully clad in B-58 "space suits."

After hitting the water, each was required to inflate his "Mae West" life jacket, get out of his parachute and crawl aboard a one-man life raft.

The simulated parachute jump

was suggested by Davis who said the exercise was more of an "indoctrination" program than a test of the suits. Major purpose was to train flight personnel how to react in the event of a wet landing.

Richard I. Gallagher, safety service director of Tarrant County Red Cross, was on hand to offer assistance for those who might have been overly drenched.

Another phase of the session required the same individuals to use the B-58 Hustler's oxygen equipment under water. This would enable them to breathe under water while escaping from a sinking plane.

Davis said the experience will be valuable in case any of the crewmen must bail out over water.

Name of Missile Training Base Changed, Cooke to Vandenberg

A delegation of Convair officials, headed by President J. V. Naish, was expected to be on hand Sunday (Oct. 5) for official name changing ceremonies at the Air Force's new ballistic missile training base.

Cooke Air Force Base, California, will be renamed for the late Gen. Hoyt S. Vandenberg, USAF, former Air Force chief of staff.

Raw Material Test Facilities To Be Centered

Plans to install physical and chemical test facilities at the Rose Canyon material building in San Diego in a program extending through the next three years have been announced by R. H. Gilliland, manager of quality control at Convair SD.

The new facilities, when completed, Gilliland said, will enable quality control to examine incoming raw materials in a one-stop inspection process and determine specification conformance of raw materials shortly after they are received.

Approximately 13,000 square feet of area will be utilized to house up-to-date equipment necessary to accomplish chemical, physical, spectrographic, metallographic, adhesive and plastic inspection. Also included will be an X-ray inspection with a supporting machine shop, heat treat facility and office function.

Ultimate purpose of the new facility will be to handle the entire scope of inspection processes.

A study made by SD industrial engineering pointed out that the new facility would eliminate the dividing and routing of chemical and physical inspection tasks to other departments. In the past this has resulted in unnecessary handling and transportation.

The study also showed that the proposed Rose Canyon location would allow receiving inspection to complete tasks with minimum time lapse from date materials are received. Efficiency would be increased, costs reduced, and scheduling improved.

The three-year program will be started next year with installation of chemical laboratory and acid storage area. Physical laboratories will also be set up next year.

Scheduled for 1960 are spectrographic and metallographic labs, machine shop and plastics lab.

Construction plans for 1961 include heat treat and shop area, X-ray lab, office and work control facilities.

SD MEN ATTEND SESSIONS AT MIT

M. V. Clark, Convair SD safety engineer, and Lou Beauchamp, industrial hygienist, are in Boston, Mass., this week attending a symposium on beryllium Sept. 30-Oct. 1 at the Massachusetts Institute of Technology.



FREE AD—Hustler gets free advertising every morning and evening from top of Continental National Bank building when clock records 8:58 (which looks like B-58).

Giant Vacuum Will Clean Out Jet 880 Wings

A giant-sized vacuum sweeping system is ready to go into action in the 880 wing bucks area at Convair SD.

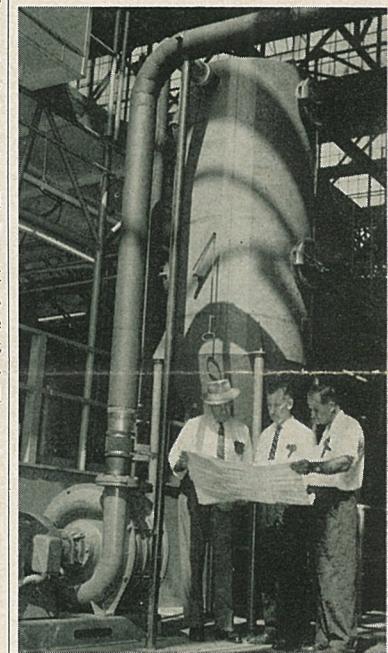
The central stationary vacuum system, first of its type to be installed in a Convair production area, will replace the factory portable vacuums and will be used to clean out 880 wing sections after they are completed.

The system was designed and installed by Convair plant engineering to fit the unit built by the U. S. Hoffman Machine Corp., N. Y., at an estimated cost of \$9,700 for equipment and installation.

Over 1,000 feet of 2-in. to 6-in. lightweight steel tubing was laid under the floor of the wing buck area with 24 outlets for hoses, four to each of the six wing stations. The hoses, 26-ft. in length, will reach to every section of the area, said W. H. Marshall, (Dept. 25) construction foreman.

Debris and metal will be sucked into the huge receiving hopper of 500-gal. capacity and emptied from the bottom into containers. Usable material will be sorted out later.

Only other central vacuum system in the plant is a smaller type installed in the computing laboratory.



BIG HOPPER—C. D. Saxon, W. H. Marshall, and R. O. Servis of Convair SD plant engineering inspect layout of new central vacuuming system at 880 wing bucks. Giant hopper receives debris vacuumed from wing sections.

Wandering Rattlers Pay With Their Lives, Trapped by Guards Turned 'Snake-Nappers'

Many Convair men draw unusual assignments in the course of their work, but for sheer novelty Convair Astronautics' Sycamore Canyon security detail (Dept. 131) may take the cake.

They are responsible for "snake-napping," among other things.

Sycamore Canyon test site is situated in a wild, remote area covered, for the most part, by rocks and brush. Rattlesnakes dwell in the secluded valleys and hills.

The rattlers sometimes wander into "populated" areas and have been found on parking lots, behind buildings and on paved areas. One even climbed into the motor section of a contractor's vehicle, causing a short circuit in the electrical section.

Security responds to all calls concerning snakes. Few are shot, since there is a possibility of bullets ricochetting.

Instead, they are disposed of via a long pole equipped with a wire noose on one end and a handle on the other. The noose is slipped over the snake's head and tightened.

Each of Sycamore's radio-controlled security vehicles is equipped with a snake-catcher. About 50 have been killed in the past two years.



BUTTON BOARD—At top, Dorothy Lowell of Astro's Sycamore Canyon security office, displays trophy board of rattles taken from "good rattlers." Below, S. I. Jorgenson, Sycamore fireman, demonstrates snake-catcher.



EASY DOES IT!—Temperature of liquid oxygen being poured above is minus 297 degrees F, necessitating protective clothing. Occasion was a safety course being presented at Cooke AFB for both Convair Astro and Air Force personnel. Thousands of Astro men and women have attended similar courses. Stan Oates, standing, of Astro training pours while Frank Harbin, right, of Astro's Cooke AFB operation and Sgt. Robert Gillham assist.

Topsy-Turvy Special Event Highlights SD-Astro Shoot

Things are likely to prove baffling, but interesting, Sunday (Oct. 5) when members of the Astronautics and San Diego Gun Clubs stage a joint shoot at CRA facilities at Gillespie Field, El Cajon.

Here's what Commissioners Jack Swank (SD) and Ezra Johnson (Astro) are planning for one special event:

Instead of firing in the conventional manner at trap and skeet targets, things will be reversed. That is, trap shooters will fire from skeet positions and skeet shooters will fire from trap positions. The resulting totals should prove interesting even to more experienced gunners.

In addition to this novel event, conventional trap and skeet events will be held along with small bore rifle rounds.

Firing starts as early as 9 a.m. with finals set for noon. Prizes will be awarded in all categories.

Johnson this week extended a personal invitation to all Astro families to take part, indicating that experienced shooters would be available to offer help to new shooters.

He also asked that Astro par-

ticipants be sure to sign in at the trap house so that accurate Astro records may be established for future events.

This is the first joint shoot the newly organized Astro Gun Club has participated in.

Ballroom Dancing Classes Will Start For Winter Season

Ballroom dancing classes for both adults and teen-agers will open next week under the sponsorship of Astronautics CRA.

The new classes, slated to continue through the winter months, will be held at 8 p.m. on Mondays and Tuesdays beginning Oct. 6 and 7. The younger set will meet at 7:30 p.m. on Wednesdays, beginning Oct. 8.

Instructors will be Bill (Dept. 150) and Grace McGrath, veteran CRA dance teachers. All classes will be held at McGrath Studios, 1322 Fifth Ave. (downtown).

Through CRA sponsorship students will receive about 40 per cent off normal charges for such instruction.

Private lessons may also be arranged by contacting the studio at BE-4-8686.

Friday to be Last Day For Dancing Classes

Friday (Oct. 3) will be the last night beginning square dancers may enroll in the new fall classes conducted by Astronautics CRA.

Sessions, held at 8 p.m. each Friday at American Legion Hall, 4061 Fairmount Ave., will continue through the winter with graduation exercises in the spring.

Over 100 dancers have been present at each of the first two sessions (Sept. 19-26). However, there is ample room for over 200 dancers in the spacious area.

Marty Stutz, CRA commissioner, said "singles" of either sex are welcome and partners will be arranged.

Students are being carried through all the phases of dancing from simple walk-throughs to advanced steps. No previous experience is required.

Engineers Sponsor Club Dinner-Dance

Engineering has assumed responsibility for planning the Oct. 25 buffet dinner-dance planned by the Convair Astronautics Management Club, President Ed Clare reports.

Dick Campbell will head a special arrangements committee.

Campbell indicated this week that the affair will be held from 9 'til 1 at Hotel del Coronado. Further information and tickets will be available later.

Committee Heads For 'M' Club Named

Appointments of committee chairmen to handle various Convair Astronautics Management Club tasks were announced this week by President Ed Clare.

They include: membership booster, Fred Baebler; records and historian, Ralph Aiman; night shift coordinator, Manuel Torres; education, R. F. (Bob) Smith; entertainment, Tom Wills; program chairman, Irv Jenkins; property, C. E. Scholl; audit, J. J. Janda; and publicity, Bryan Weickersheimer.

Clare also named Maynard Bjorstrom and Jenkins to serve as club representatives on the Con-Trib-Club Committee.

Log Book Entries

Promotions

ASTRONAUTICS
Promotions and transfers to or within supervision effective Sept. 15:

Dept. 120-4, Communication: To asst. supervisor photo, N. G. Dyhrenfurth.

Dept. 181-0, Methods & Layout: To supervisor factory methods, C. C. Harper Jr.

Dept. 451-0, Jigs & Fixtures: To asst. foreman Gr. V, D. B. Campbell.

Dept. 731, Machine Shop: To asst. foreman Gr. V, V. E. Hoagland, M. D. Wolfe.

Dept. 732, Sheet Metal: To asst. foreman Gr. III, A. A. Gomez.

Dept. 733, Processing: To asst. foreman Gr. III, B. J. Brinks.

Dept. 756, Engr. Test Support: To asst. foreman Gr. V, R. E. Snyder.

PATRICK AFB
Dept. 731, AFMTC Model 7: To asst. foreman mfg. control, S. M. Ritchason.

To asst. foreman Gr. V, J. A. Mathews.

Deaths

ASTRONAUTICS
LUICK — Emmanuel L., Dept. 401-0. Died Sept. 13. Survived by wife, Evelyn; son, James.

'Astrolens' New Photo Group

"Astrolens," CRA-sponsored photography group at Convair Astronautics, has completed most of the initial steps required in setting up a regular activity and will complete the arrangements Oct. 13.

At that time the group will gather in the Astro cafeteria to select officers from a slate recommended by a committee composed of John Trader, Les Blakely and F. B. Prestley. Those elected will serve for the balance of this year and next.

At the same time a group evaluation of pictures submitted by members will be held.

Astrolens welcomes all Astro employees interested in various phases of photography.

Frank Pitch Winner In Vandenberg Golf

Recreational activities among Astronautics personnel assigned to Vandenberg (Cooke) AFB got under way Sept. 21 with a golf tournament at the Alisal course in Solvang.

Winner of the blind bogey event was Frank Pitch, runner-up Wayne Thompson. Frank Harbin registered low gross, with Dan Darrow winning low net. Fred Pratt scored the most birdies.

Pratt has assumed responsibility for conducting future events and will be assisted by George MacClean and Bob Daly. Plans were made to hold two tournaments per month in an effort to establish handicaps.

Next tournament is set for Oct. 4 at the Santa Maria Country Club.

Astro Holds Tickets To 'Ducks Unlimited'

Convair Astronautics CRA office has made arrangements to handle tickets to the Oct. 9 "Ducks Unlimited" dinner in San Diego. It will be held at the Grant Hotel's Palm Room.

Tickets are \$12.50 each and include dinner, cocktails and entertainment. The latter will include a color film on waterfowl. All proceeds from the dinner are sent to Canada to restore marshland breeding grounds. Many door prizes have been donated.

Interested sportsmen may contact CRA in Bldg. 8 for tickets or call Ed Muzzy at BE-4-8161 for reservations.

Sports Car Clubbers Balloting by Mail

Results of mail balloting conducted by the Convair Astronautics Sports Car Club will be announced at that group's Oct. 9 meeting at 7:30 p.m. in the cafeteria, according to Bill Rector, CRA commissioner.

Present plans call for installing the newly-elected officers at that time.

Rector indicated this week that a monthly event for the 61 members signed up by the group is being planned.

Astro's Alyce Martin Earns 'Atlas Award'

Alyce Martin of Convair Astronautics has won an "Atlas award," (no relation to Convair's Atlas) at the annual Old Globe Theater awards presentation last month in San Diego.

It was for the best performance of an actress in a minor role. She played the Little Old Lady in the Old Globe production of "Desk Set."

Astro Divers Plan Lobster Swim Oct. 5

The Astro Divers have slated a lobster dive for noon Oct. 5 at the north end of Bird Rock Cove. Awards will be given for the day's activities and points allotted toward naming the group's diver of the year.



AT YOUR SERVICE—Elsie Richardson of employee services shows how Astro people may utilize new bulletin boards located throughout plant to advertise items for sale, rent, etc. Only regulation 3x5-inch cards may be used and each must be removed after two weeks. Sub-heads help readers locate various items.

Want Ad Cards Now Restricted To Special Bulletin Boards

Convair Astronautics has just completed installation of special bulletin boards which are available to all employees who wish to buy, sell, or advertise.

The boards are located in strategic points throughout the plant. Those wishing to use them may take advantage of as many as they wish.

However, several rules must be observed. Only 3x5-inch cards may be used. No fancy art or oversized items will be allowed. Regulation size cards are available at employee services, Bldg. 8. Employees must fill them out, then pin them to the board under appropriate sub-heads. And they must be removed by the employee after two weeks.

Company regulations prohibit the posting of cards, signs, etc. at any point other than authorized bulletin boards.

Two boards have been installed in the factory (Bldg. 5). One is

Registration Open To Astro Net Event

Convair Astronautics will hold its second CRA tennis tournament Oct. 25-26 at Morley Field, according to CRA Commissioner Larry Chambers.

Players may enter by contacting Chambers at ext. 1841, Plant 1 (SD Division), no later than Oct. 23. Play will begin at 10 a.m. both days.

Events will include men's singles and doubles and women's singles.

Semi-finalists in this event will join the semi-finalists of the August event as seeded players in establishing an Astro team for outside events.

Club Will Dedicate Astro Horse Ring

Plans for a formal dedication of the new Astro horse ring will be discussed Oct. 6 when the CRA Riding Club holds a 7 p.m. meeting at the cafeteria.

The ring, built by volunteers in the new CRA recreation area adjacent to the Astro plant, is almost complete. Being considered is a formal horse show as part of the dedication.

CRA 'Buys the House' For Old Globe Show

Astronautics CRA this week announced plans for "buying the house" at the Oct. 16 Old Globe Theater presentation of "Boy Friend."

Tickets will be offered to employees at half-price. That is, buy one ticket and the second one is free—compliments of CRA.

Ticket sales begin tomorrow (Oct. 2) at 9 a.m. at Astro's employee services office in Bldg. 8. The 400 tickets will be available on a first-come, first-served basis.

Ticket prices are \$2.25 and \$1.75. All seats are reserved.

'59 Golf Activities Subject of Meeting

A full-scale reorganization meeting of the Convair Golf Club will be held tomorrow night (Oct. 2), 7:30 p.m., in room 8, Conference Building, Balboa Park, said F. W. Kelly, club vice president.

All members are urged to attend. Prospective by-law changes and the 1959 club sweepstakes and tournament schedules will be discussed and voted on.

Door prizes will be awarded and refreshments served.

Astro Now Offering Marineland Ducats

Something new in the way of discount tickets is being offered Convair Astronautics employees this week. Astro CRA now handles cut-rate tickets for Marineland of the Pacific at Palo Verdes.

Adult tickets sell for \$1.50 (a 50-cent savings), while children 17 and under will be admitted on 50-cent tickets (saving of 40 cents). Youngsters under 7 are admitted free.

Tickets may be obtained at CRA, Bldg. 8.

Tickets at Bargain Rates Available

The following discount tickets are available at Astronautics' employee services office, Bldg. 8:

Marineland, Palos Verdes, all times, 50 cents off on adult tickets, 40 cents on junior admissions.

Swim night, Oct. 18 at Mission Beach Plunge, 7 to 9:30 p.m. (available Oct. 13). No charge.

Roller skating, Skateland, Oct. 6, 6:30 to 9:30 p.m. No charge.

Disneyland, new arrangement with Astro issuing membership cards to be exchanged for discount tickets at Disneyland.

Master Points Bridge Scheduled For Oct. 9

Convair Astronautics Bridge Club has two events slated for October.

On October 9 a master points program will be held. On Oct. 23, in addition to regular play, a special committee will be named to help coordinate all club activities. Astro players have also been invited to participate with the San Diego Division CRA Club on Oct. 14 and 28.

Bridge Club activities are held at the Barcelona Bridge Club, 4th and Juniper Sts.

CRA Calendar

(Convair Recreation Association currently lists more than 25 regular activities, while others are in the process of forming. For information on any activity contact CRA, ext. 1111.)

ART CLUB—Meets every Tuesday at 7:30 p.m., Astro cafeteria.

ARCHERY—Regular shoots second Sunday each month at Astro recreation area. Registration at 9 a.m.

ASTRO DIVERS—Lobster dive at noon, Oct. 5, north end of Bird Rock Cove.

ASTROLENS—Meets 7:30 p.m. Oct. 13 at cafeteria. Election of officers.

BADMINTON—Open play and instruction 7:30 p.m. Tuesdays at Federal Bldg., Balboa Park.

BALLROOM DANCING—Beginning adult classes at 8 p.m. Oct. 6 and 7, teen-agers at 7:30 p.m. Oct. 8. McGrath Studios, 1322 Fifth Ave.

BASEBALL—Practice sessions at 5:30 p.m. each Thursday at Linda Vista ball park. League starts Oct. 12, play on Sundays at Linda Vista site.

BASKETBALL—First practice for experienced players at 7 p.m. Oct. 16 Muni Gym. Shop league forming later.

BIBLE CLUB—Group discussions noon Tuesdays and Thursday, conference room, fourth floor, Bldg. 3; at 11:45 a.m. Mondays and Wednesdays, electronics conference room, Bldg. 3. Contact Bill Dawsey, ext. 1193.

BRIDGE CLUB—Meets second, fourth Thursdays at 7:30 p.m., Barcelona Bridge Club, 4th and Juniper Sts.

CHORAL CLUB (men's)—Now forming. Contact Ray Mendoza, ext. 1111, for information.

COIN CLUB—Meets last Wednesday each month, 7:30 p.m. Astro cafeteria.

GOLF—Entries being accepted for first plant championship Oct. 12 at Caliente, Oct. 19-26 at Flying Hills. Contact Art King, ext. 448.

GUN CLUB—Shoot at 9 a.m. Oct. 5, Gillespie Field.

MODEL RAILROAD—Meets with San Diego Model Railroad Club at 7 each Friday night, House of Charm, Balboa Park.

PISTOL CLUB—Shoots at 9 a.m. each Sunday, San Diego Police Range.

RADIO CLUB—Meets 7 p.m. Oct. 2 at cafeteria.

RIDING CLUB—Meets 7 p.m. Oct. 6 at cafeteria to discuss plans for dedication horse show at new CRA arena.

ROCKHOUNDS—Forming, contact Ray Mendoza, ext. 1111.

SNOW SKI—Meets 7:30 p.m. Oct. 2, executive dining room.

SPORTS CAR CLUB—Meets second, fourth Thursdays, 7:30 p.m. at cafeteria.

SQUARE DANCE—Last chance to enter new beginners class at 8 p.m. Oct. 3, American Legion Hall, 4061 Fairmount Ave.

TENNIS—Matches Oct. 25-26 Morley Field beginning at 10 a.m. Contact Larry Chambers, ext. 1841, Plant 1, to enter.

WOMEN'S ACTIVITIES—Fashion show Oct. 2 at 8 p.m., Bldg. 2.

CRA Sports & Recreation Convairity



ASTRO'S FINEST—Golfers at Astro firmly believe that to win the championship flight at the forthcoming plant championship will require a victory over one or more of this trio. All are top shot makers. Left to right are Jack Maughmer, Dick Parmley and Morrie Baxter. Tournament will be played over three Sundays in October.

Match Play Tourney Extended With Play Limited to Sundays

Due to the large number of golfers now on overtime, Convair Astronautics has been forced to revamp plans for its first CRA plant championship slated for this month, according to Commissioner Art King.

Instead of play on both Saturdays and Sundays over two weekends as previously announced, competition is now slated for Sundays only and will extend over three weeks.

Opening rounds will be played Oct. 12 at Caliente. Second and final rounds will be held Oct. 19 and 26 at Flying Hills.

Ten Qualify For CRA 'Effie' Awards After Minimum of 20 Hours' Work

Less than a dozen of the 480 persons who have helped so far in developing CRA's new recreational area adjacent to Astronautics' plant are qualified to receive "Effies."

The "CRA Effie" is a small ash tray complete with upright missile and engraved plaque bearing the recipient's name. They are

being presented to volunteers who log 20 hours of work in the area in their spare time.

Work totals through the first three weekends in September show only 10 men have completed 20 hours. They are:

F. W. Augustine (Dept. 535); Clyde Burkhardt (Dept. 771); Bill Cheney (Dept. 180); Bill Dawsey (Dept. 521); Ezra Johnson (Dept. 771); C. R. Martin (Dept. 771); Jim Miller (Dept. 771); Howard Phillips (Dept. 250); Al Stone (Dept. 181) and Ray Menzo (Dept. 130).

One woman, Gladys Reynard of Dept. 220, and numerous men lack only a few hours to complete the 20-hour minimum.

Books in the CRA office show that volunteers have worked 2,090 hours in the area. Dept. 771 men and women lead the list with 634 hours. Tooling employees have contributed 376 hours, engineering functions, 222 hours and quality control groups, 107 hours. Many other groups and individuals have worked smaller number of hours.

Work parties are formed mornings and evenings on Saturdays and Sundays.

Information about the area is available through Ray Mendoza, ext. 1111.

**Is It News?
Call Convairity**



SNOW SOON?—Despite warm weather, some 60 Astro men and women have formed new snow ski group in anticipation of coming season. Two members, Shirley Kuhn, left, and Pauline Boisbriand, model snow gear for photographer Les Blakely of AstroLens. Next meeting is Oct. 2 in Astro executive dining room.

Nearly 1,000 Bowlers Rolling Regularly in Astro Winter Loops

Convair Astronautics keglers, almost 1,000 strong, now roll each week night. And several teams take part in traveling leagues over weekends.

Commissioners Willard Brassell and Jack Boyle report 14 regular leagues now in action. Some have rolled since the second week in September, others started more recently.

One of the first rituals each league performed was the naming of officers. Below is the complete slate of officers. Leagues are arranged by their night of action. The following symbols are used throughout: president (P); vice president (VP); secretary (S); treasurer (T).

MONDAY—Astro Classic: Ed Frankoski (P); Dave Moon (VP); Vic Salgado (S-T). Sycamore Mixed Handicap: Bob Klenha (P); Dave McCallum (VP); Lorraine Sweeney (S-T). Astro Women's: Alice Peck (P); Lorretta Whittfield (S-T).

TUESDAY—600-625 Mixed Handicap: Ron Henry (P); Matt Hill (VP); Dottie Hood (S-T).

650-700 Mixed Handicap: Ken Berling (P); Gene Kelly (VP); Goldie Rose (S-T). Astro Highball: W. C. Geopfart (P); Ron Crick (VP); Lee Buss (S-T).

725-750 Mixed Handicap: Lee Snider (P); Jack Aiken (VP); Ann Ragusa (S-T). 9 p.m. Mixed: Eric Hertz (P); Ken Kinman (S-T).

THURSDAY—600-625 Mixed Handicap: D. Langbridge (P); E. Dennis (VP); Pat Mills (S-T).

Course Starts In Trampoline

Trampoline classes, the first ever offered under CRA sponsorship, are being set up to begin next week at the McGrath Studio, 1322 Fifth Ave.

Astro employees or members of their families may take part in sessions to be offered at 4 p.m. on Tuesdays and Saturdays. First classes will be Saturday (Oct. 4) and Oct. 7.

Classes will be limited to about six.

Instructor will be Larry Shaul, local AAU champion and student of Orlando Coons, an Olympic champion. Astro CRA members will receive reduced rates.

Information and reservations are available by calling BE-4-8686.

Ball Club Will Play First Game Oct. 12

The Convair Astronautics baseball team will take to the field in Industrial league competition for the first time Oct. 12 at Linda Vista ball park.

Practice sessions are at 5:30 p.m. each Thursday at Linda Vista. Players are invited to try out, according to Manager Duke Pawlik.



RUNNER-UP—Danny Conklin, 6, Convair SD-Astro son, receives trophy from sister, Jennifer, after placing second in Chula Vista Speedway quarter-midget main event. First place was won by Efren Dorame, nephew of Louis Mendoza of Convair SD Dept. 6-51.

650 Mixed Handicap: W. J. Couchois (P); L. W. Miller (VP); Peggy Hurst (S-T). 750 Mixed Handicap: Ed Lou (P); Ed Frankowski (VP); Isabelle Buechler (T); Ellen Weight (S). 750 Men's Handicap: Dan Brown (P); R. Tuttle (VP); H. Olson (S-T).

FRIDAY—Product Support Major-Minor: Dick Bogardus (P); Mike Waters (VP); Norma Hays (S).

SWING SHIFT—Lee Kite (P); J. E. Lucks (S-T).

First Call Sounded For Astro Hoopsters

First call for experienced basketball players interested in representing Astronautics in outside competition has been sounded.

A practice session will be held from 7 to 9 p.m. Oct. 16 at Muni Gym, Balboa Park. Bob Ballard, former UCLA cager and veteran CRA player, will be in charge.

Meanwhile, CRA asked that groups within Astro interested in taking part in shop league action this winter begin forming teams.

Fifty Astro Skiers Prepare to Organize

More than 50 snow skiing enthusiasts have signed up at Convair Astronautics to take part in a CRA-sponsored group. Next meeting of that group will be held at 7:30 p.m. tomorrow (Oct. 2) at Astro's executive dining room.

Slated for attention are plans for the coming season, approval of by-laws and other club business. Entertainment will include a talk by a local sporting goods expert on equipment. A movie of last year's Convair SD skiing activity will be shown.

All CRA members interested are invited to attend.

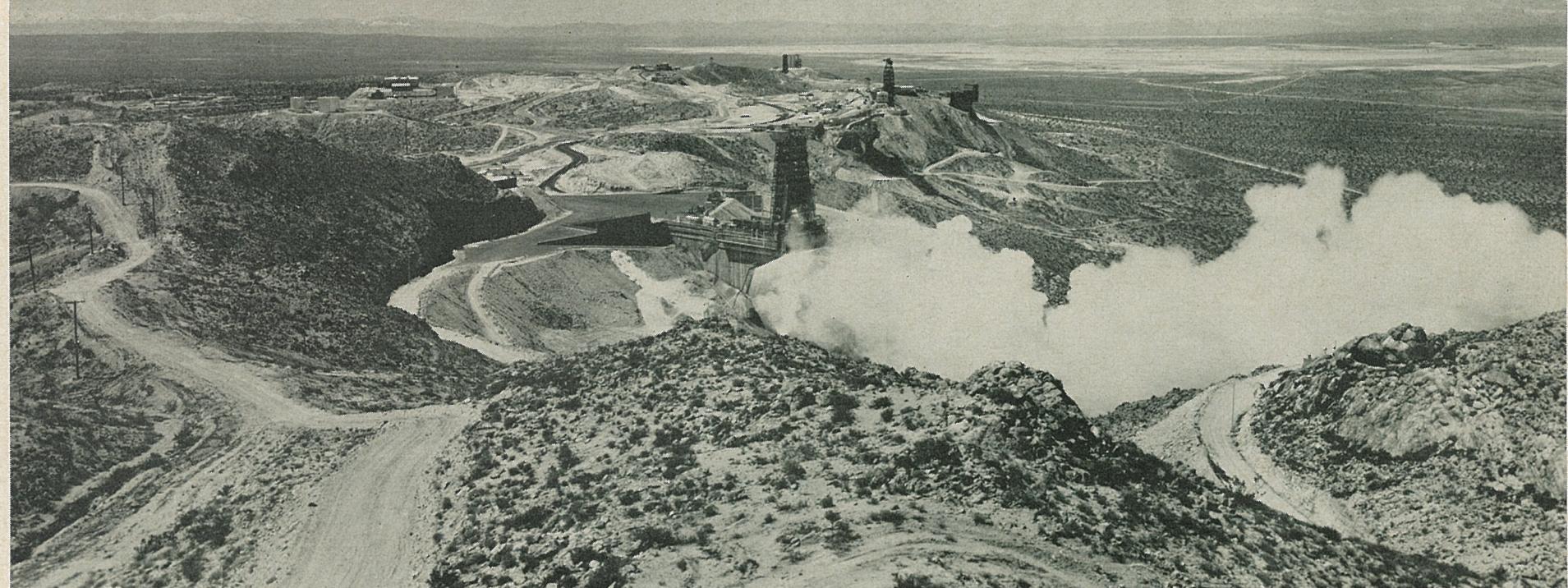
6-Year-Old Boy Races Into Winners' Circle

A Convair son is following in his father's tracks—racing tracks, that is.

Six-year-old Danny Conklin, son of Jim (Astro Dept. 130) and Jeannine Conklin (SD-Dept. 98-7), broke into the quarter-midget winners' circle after only a month's practice.

Jim Conklin, who was a mid-midget racer in the Midwest and East some years ago, started Danny on the racing road the latter part of August. By the middle of September Danny had picked up the knack of driving to win, coming in second in the main event at the Chula Vista Speedway. He proved he could do it again by taking runner-up spot the next week at the Fiesta de la Luna event.

Atlas Countdown and Static Test Run Exciting to Watch



DESERT TEST FIRE—This is view of Missile Static Test Site (formerly called Edwards Rocket Base) in Mojave Desert. More than 600 Astronautics Division people are stationed at this remote part of Edwards AFB reservation. This is one of two

localities where Atlas missile static tests are run. Other is Sycamore Canyon near San Diego, described below. AFMTC in Florida is base from which Atlas launchings are conducted, using a giant South Atlantic range.

Here's What It's Like To See Static Firing



OBSERVATION POST—From this vantage point, Bryan Weicker-sheimer Jr., Astronautics news editor for Convairiety, watched recent static test firing at Sycamore Canyon. Here is his account of what it's like:

Several times each month for almost two years a select group of Convair Astronautics men has conducted tests that have been heard by many, seen by few.

These are static tests on the Atlas missile. They are performed at Astro's Sycamore Canyon test site from which sounds are audible in many areas of San Diego. Comparatively few have seen what actually transpires there.

Requests to view tests are screened carefully. Security is tight. There is an element of risk and "seats" are at a premium. Observers must watch from the blockhouse, via closed circuit TV (normally reserved for some 40 working engineers and technicians during tests) or from one of four surplus Army tanks used as observation posts.

A recent test was held at Stand Two (S-2), one of two complete test units at Sycamore. E. R. McFadden, test conductor, was in charge. His assistant was R. C. Lynch.

Chief test conductor at Sycamore is Ken Newton. Phil Gard-

ner is base manager.

Three of the ex-Army tanks were stationed on a ridge overlooking S-2. Across the valley was the fourth. Behind was S-1.

The center tank was assigned to photographers and one observer. Walt Gault, still photographer, had "armed" the tank with cameras, five in all. There was an assortment ranging from one with an 800 mm lens that could pinpoint a small square on the missile, to a Hulcher 70 mm capable of firing 50 frames per second. He had rigged up an array of strings and trips to fire all cameras during the relatively short duration of the run. (Most are for a few seconds, some go into minutes but not many.) Bob Williams, a movie cameraman, and his assistant had been on hand since 2 a.m., lining up 15 motion picture cameras at strategic points. Williams would hand-hold one camera at the tank, the others would be tripped from the blockhouse. It was then "minus 90 minutes," condition: amber (only those directly concerned

with the test could pass into the area through security check points).

The observer's earphones resounded with pre-countdown procedures. To the laymen they were baffling. (Countdown check lists fill a volume about the size of an encyclopedia. Each item it contains must be included in the operation).

Below, the tempo quickened. The Atlas loomed majestically, enclosed in its steel tower. The "flame bucket" below, which would deflect the powerful exhaust, looked like a blackened snout. An elevator outside the tower busily raced up and down, carrying men to final chores. Each wore a hard hat that gleamed in the warm noon sunshine. From a distance they moved like toy soldiers. In a few minutes Air Force inspectors appeared to perform final checks. Test time drew nearer.

Then the loudspeakers belled: "Clear the area!" Vehicles started a general exodus. A bus brought out the last crews as others trudged down the ramps to the blockhouse. A small security jeep swung slowly about the area, radioed "all clear" and left. Lt. George Ray waved from it as he passed the tanks, driving away. Behind, all workers had been cleared from the S-1 area.

It was minus 30 minutes, condition: red. (Unless a "hold" occurred no one could enter or leave the area.)

Silence spread thickly over everything. Then a hiss came from the missile area and thin white vapor emerged from near the nose. Liquid oxygen (Lox) was being pumped into the tanks. Soon the sides of the missile frosted. It looked like a big popsicle.

Time moved quickly, punctuated by frequent reminders—X-20, X-10, X-2 and then the final 10 seconds were counted individually: 9 . . . 8 . . . 7 . . . 6 . . . 5 . . . 4 . . . 3 . . . 2 . . .

The entire area began to shake. A roar filled the air. It was unlike any sound of jets or air-

Photogs Are 'All Hands' Observers 'All Eyes'

craft. Black smoke billowed out behind the tower. Looking into the flame was almost blinding. It was all orange and white and in places almost red. The photographers were "all hands" as they tripped shutters; observers, "all eyes" as they watched through powerful field glasses. Then the black smoke turned to white steam (as thousands of gallons of water flowed from a hilltop reservoir to cool the flame bucket) and the noise lessened. Suddenly it stopped. No sound was audible save a faint hiss now and then. Small columns of smoke climbed from the missile's tail.

Men in the tanks flipped back hatches, but no one emerged. The photographers exchanged comments over the footage they had acquired. The test had been a good one. The earphones resumed their chatter, post-countdown formalities.

Below only the "breathing" of LOX tanks broke the stillness as fuel was returned to storage tanks. The area was devoid of life. Then out marched two solitary figures (a safety engineer and a firefighter). They boldly approached the missile, exchanged radioed information with the blockhouse and then moved back. Soon more emerged from cover. Two big fire trucks rolled into position.

Later, McFadden discussed static tests, expressing opinions on various sites. Static tests for the Atlas are performed at Sycamore and the Missile Static Test Site (formerly Edwards Rocket Base) in the Mojave Desert. Launchings are confined to the Air Force Missile Test Center in Florida.

"Each has its own purposes and advantages," McFadden said.

"But for all-around convenience,

this (Sycamore) is the best.

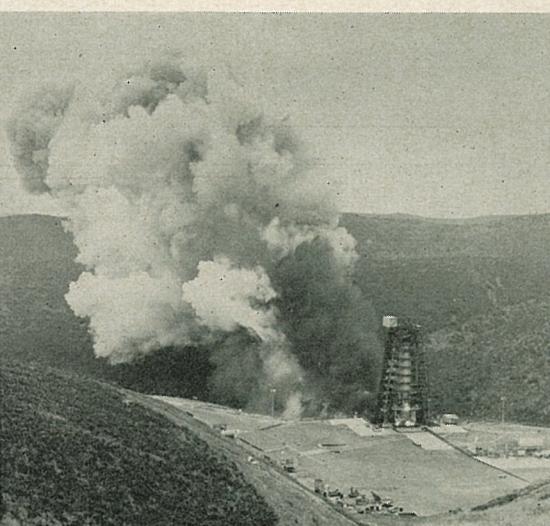
"That's because everything is geared to the test in progress. No delays from other tests, no coordination for ranges, etc. We have a very smooth operation here."



LACEWORK—Ridge-top roads make a pattern in this aerial view of Sycamore Canyon facility. Arrows mark Atlas test stands. Tight security is observed at Sycamore. Guards regularly patrol area by jeep, sometimes pick up "wet" Mexicans, trying to beat their way north.



COUNTDOWN—At left above, inside blockhouse at Sycamore Canyon, E. R. McFadden, test conductor, standing, and R. C. Lynch, assistant conductor, are in action during countdown which precedes test run. At right is Astro photographer



Walt Gault and his camera battery atop ex-Army tank. Each test run is carefully recorded on film. Center, Atlas engine in action. Steam (result of water cooling flame bucket) mingles with exhaust.





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SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

DAINGERFIELD AND FORT WORTH, TEXAS

SD and Astro Pledge United Fund \$265,000

San Diego and Astronautics Division Con-Trib-Clubs last week jointly pledged a total of \$265,000 to United Fund, an increase of \$15,000 over last year and the largest sum Con-Trib has ever donated in the San Diego area.

SD Division's share was \$175,000 and Astro earmarked \$90,000. The gift will be made quarterly.

Meanwhile, Astro announced an all-out drive to increase Con-Trib-Club membership. The campaign begins tomorrow (Oct. 16) and will continue until Oct. 24. San Diego Division's annual "Straggler's Drive" canvassing non-members will not start until Nov. 3.

During the Oct. 16-24 campaign Astro hopes to accomplish two major tasks. First, an attempt will be made to get 95 per cent of the working force signed up as Con-Trib-Club members. If successful this will put Astronautics in front of similar organizations at all other Convair divisions. Astro currently trails all other groups with only 74 per cent participation.

At the same time, it is hoped that old and new Con-Trib members will increase their pledges to reflect "fair share" giving practices. This, in turn, will enable greater support of all worthy charities.

Last week's Astro pledge of \$90,000 to United Fund on behalf of all Astronautics employees

Position of General Purchasing Agent Goes to W. G. Evans

New assignments for two Convair San Diego material executives were announced last week by A. W. Morgan, assistant manager-operations.

W. G. Evans is now general purchasing agent; W. R. Bruce is chief of subcontracting.

Evans is a native of Buffalo, N. Y. and a graduate of Canisius College and the University of Buffalo Law School. He worked for five years as an adjuster for Guardian Life and the New Amsterdam Casualty Co. He served as an attorney and investigator for the city of Buffalo for 13 years.

Joining Convair SD in 1948 as an assistant in the material department, Evans became a staff assistant in the same department in 1950 and a material adviser four years later. In 1954 he was appointed a purchasing agent and in 1957 became chief of subcontracting.

W. R. Bruce hails from Rochester, N. Y., where he attended the University of Rochester. From 1941 until 1956 he was employed by Solar Aircraft in San Diego and left that firm in 1956 after rising to manager of the material division.

In 1956 he joined Convair SD as a buying supervisor and early in 1957 rose to the job of purchasing agent.

was the first official disbursement of Con-Trib funds voted by its governing Employees' Committee.

Joining Astro Con-Trib-Club will be simple.

This week each employee will receive a special tab card. This card is an application for Con-Trib membership and an authorization for payroll deductions. On the front is space for a signature, date and the amount the individual wants deducted from each pay check. There is also space for listing any exceptions

(Continued on Page 2)

Prospects Bright For Europe Sales

Future sales prospects in Europe for Convair jet transports are considerably brighter as a result of the Swissair-SAS order, J. G. Zevely, Convair director of contracts and commercial sales, said this week on his return from Zurich, Switzerland.

"This will be a forerunner and I expect many others to follow," he commented. "Swissair and SAS fly east to Tokyo, south to Johannesburg and west to Rio where 880 competition will be keenly felt by a great many of the world's airlines. We feel confident that these lines will find, from analysis, that the

(Continued on Page 2)

rope, South America, Africa, the Middle and Far East.

J. V. Naish, president of Convair, explained that the new version of the 880 will have a range of 3,400 statute miles with complete overwater provisions and reserves. The planes will be capable of non-stop flights between Europe and the United States and between Europe and South America.

Swissair acted as the purchasing agent. Amount of the contract was more than \$18 million.

Delivery is set for the fall of 1960 and the airplanes will operate on the airlines' worldwide network of passenger routes in Eu-

rope, South America, Africa, the Middle and Far East.

The intercontinental 880 retains the short-to-medium range characteristics of the domestic 880, but has increased maximum allowable operating weights and fuel capacity, still retaining the ability to operate in and out of nearly all airports which presently accommodate four-engine piston equipment.

Power plants are four General Electric CJ-805-3 jet engines equipped with silencers and thrust reversers.

The long-range 880 will carry 13,870 gallons of fuel, an increase of 3,100 over the basic 880. Gross takeoff weight will be 203,400 pounds, an increase of 24,900 over the domestic type.

Fuel for the basic 880 is contained entirely within the four integral tanks formed by the wings. The long-range 880 will use these and will carry additional fuel in five cells placed in the center wing section.

The Swissair-SAS purchase brings to 78 the total number of jet transports now on order.

Coincident with the general announcement, the two airlines announced that Swissair will lease two 880s to SAS for four years and SAS in turn will lease four Caravelles to Swissair, also for four years. The lines have agreed to organize common maintenance with Swissair overhauling 880s and SAS overhauling the Caravelles and DC-8s. Planes will be fully standardized between the two companies.

Big 'Cat' Bagged By Convair Son

A 140-pound cougar was bagged recently in the Laguna Mountains near San Diego by the son of Clayton Williams Sr. (Palmdale Dept. 328-2).

Clayton Jr., who lives in San Diego, felled the big cat with one shot from a deer rifle when it leaped out at him from behind a log.

Mating of Major Jet 880 Components Completed

This week marked a high point in the construction of the first Convair 880 jet transport with the final installation of the last of the plane's major parts.

No. 1 transport now has the appearance of a complete plane with both the aft fuselage and forward fuselage joined to the center overwing barrel and wing section.

Aft fuselage of the first three planes will contain the aft passenger entrance door and hydraulic compartments. Planes following the pressure cycle article will have the lavatory, buffet, and cargo compartments included in the aft fuselage. The forward fuselage includes the passenger loading door and compartment access doors.

Scheduled to be installed this week, while the plane remains in its present major mate location, were the flaps, leading and trailing edges. Main landing gear, which has been in place in the fixture for several weeks, was to have been secured for operation. Vertical stabilizer and rudder was to have been put in place by last week, while the horizontal stabilizer is due here by Oct. 18.

The first plane set of four jet pods and pylons was scheduled to arrive from Rohr Aircraft Corp. by today (Oct. 15).

According to C. F. Uhl, major mate and final assembly general foreman, the first plane will go into final assembly the week of Nov. 7, if work proceeds according to the present schedule.

About two weeks will be spent checking out electrical installa-

tions before the big transport is wheeled into Bldg. 3. In final assembly, electrical, hydraulic, and flight control operations will be checked out. As No. 1 moves down the final assembly line, final clean-up and CAA inspection will wind up operations before it is handed over to field operations. Completion date is set now for Dec. 30.

Five 880 wing sections are now on the assembly line, with the overwing barrel mated to planes Nos. 2, 3, and the pressure cycle plane. The second 880 is scheduled to move into major mate the latter part of next week.

Permanent Facilities Complete For Jet 880 Customer Training

Permanent facilities for 880 customer training at Convair SD were completed the first of this month in Bldg. 4, Plant 1.

To be used jointly by production flight for flight training and customer service for maintenance training, the new office and classroom area is located in the south central section of the building, between Cols. C and D from stations 7-11.

Plant engineering was in charge of the construction in the 8,000-ft. section. Included in the new area are an assembly room, large conference room, four offices, four 20x30-ft. classrooms and two storerooms.

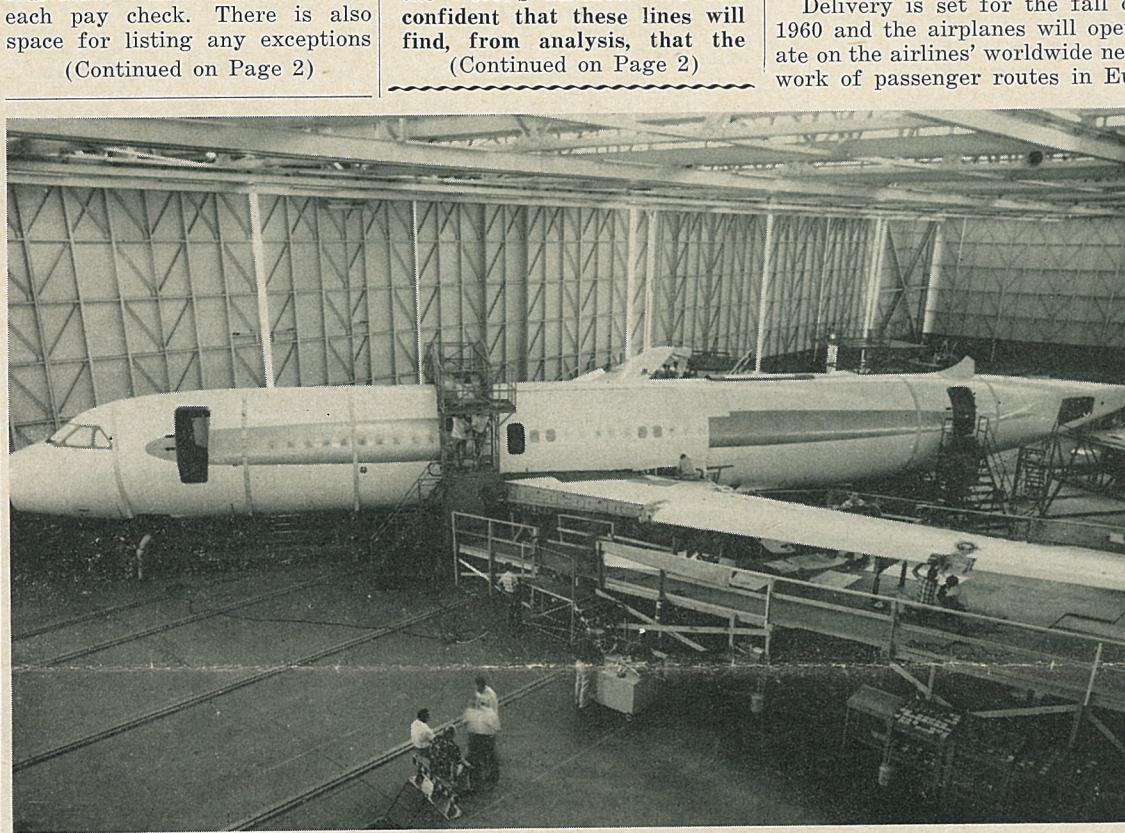
Production flight (Dept. 12) will occupy one office and two adjoining classrooms while field service transport section of customer service (Dept. 15) will have

the other three offices and two classrooms. A storeroom is available for each function.

One large room is being reserved as space for the cockpit procedures trainer which is expected to arrive here next February. Production flight crews will be briefed on the trainer, now being built for Convair by Burton-Rodgers, Inc., of Cincinnati, Ohio.

The new classrooms will go into use next month when customer service opens its evaluation course for TWA representatives. Production flight will start its first customer training classes for TWA next June.

Production flight crew training is continuing in the present classrooms on Bldg. 4 second floor, said P. H. Selby, flight training supervisor.



880 MATED—First Convair 880 jet transport shows its entire shape as forward fuselage was mated last week to other sections. Aft fuselage went into mating two weeks ahead of schedule.



ON WHEELS—First main landing gear for 880 No. 1 is secured in place. First landing gear assembly received from Cleveland Pneumatic will be used for operational testing purposes. Final installation was made last week.

Astro Announces New Hours of Work

In an effort to ease traffic congestion during peak periods at Convair Astronautics, a new set of work hours will become effective Oct. 20.

On that date factory employees will begin work at 7 a.m., quitting at 3:45 p.m. Administrative personnel will report at 7:45 a.m., leaving at 4:30 p.m. Engineering personnel will report at 8:15 a.m., working until 5 p.m.

All groups will continue to enjoy a 45-minute lunch period.



W. R. Bruce

Bruce hails from Rochester, N. Y., where he attended the University of Rochester. From 1941 until 1956 he was employed by Solar Aircraft in San Diego and left that firm in 1956 after rising to manager of the material division.

In 1956 he joined Convair SD as a buying supervisor and early in 1957 rose to the job of purchasing agent.

Bldg. 5 Entrance at Overpass To be Widened to Three Doors

Widening of the main entrance to Bldg. 5 at Convair SD will begin the first of next week. A third door will be added on the north side of the present double door to enlarge the entranceway leading from the Bldg. 19 overpass.

Installation of the new stairway from the second to third floor of Bldg. 5 will also start next week. The existing stairway will be used while work progresses on the new addition which will double the width of the stairs in their present location.

Next area to be completed in the Bldg. 5 and Bldg. 51 renovation program will be the west half of the third floor of Bldg. 51. Due date for occupancy is set for Oct. 31. Work on the east, or front, section of Bldg. 51 second floor is progressing on schedule with completion slated for Nov. 7.

Remodeling of the east section of third floor of Bldg. 5 has been delayed about a week, said construction foremen of the James Stewart Co. Completion will probably be the first week in December.

Renovation of the fifth floor

Neal Takes Part In Disaster Test

John Neal (Palmdale Dept. 321-1 foreman) participated in the semi-annual Los Angeles County Disaster Communications Mobilization exercise held recently at Charlton Flats in the San Bernardino Mountains.

Neal is assistant communications officer for District 11 (Lancaster) headed by Dr. J. S. Bush. They were in charge of nine radio-equipped cars from Area 11.

of the General Office building (Bldg. 19) was finished during the last of September with the remodeling of the fourth floor to be completed the last part of October.

Astro Will Change Over 400 Telephone Numbers on Oct. 26

Over 400 telephone numbers at Convair Astronautics will be changed Oct. 26 in a preliminary move necessary in preparing for additional telephone service.

In early November Astro will place in service some 700 new telephone numbers, plus a number of new outside trunk lines. Telephone crews have been readying this service on a two-shift per day schedule for some time, according to Fred Carnes, supervisor of office services.

In general, the following changes will be made Oct. 26:

200s become 1500
300s become 1600
400s become 1700
500s become 1800

The following are exceptions:
421 information to 1421
421 long distance to 1421
555 emergency to 1555
510 fire to 1510

JERRY KLEIN TRANSFERS TO VANDENBERG BASE

G. A. "Jerry" Klein, past president of Convair Palmdale Toastmasters, reported Monday (Oct. 13) at Astronautics facility, Vandenberg Air Force Base, in his new position of office services supervisor. He has been a systems analyst at Palmdale since joining Convair in November of 1956.

Astro ESs Rise Despite Move

Despite the distraction involved in relocating its manufacturing operations, Convair Astronautics has noted a 22 per cent increase in participation in its Employee Suggestion (ES) program this year over a corresponding period last year.

Astro's off-site bases (Missile Static Test Site, Air Force Missile Test Center) are due a great deal of credit for the increase.

While Astro employees at San Diego were busy in moving into their new plant, the off-site people were busier than usual in dreaming up ideas that would save Convair money.

For the first 8½ months of 1958 some 1,975 ESs were received. This compares to 1,619 for the same period in 1957.

Astronautics has installed 333 of these money-saving ideas resulting in an expected savings of \$76,727. Successful submitters pocketed \$10,497.60.

Rated "top man" in the amount received this year is George Helminski of Dept. 758 who took home \$806.05. Ten others, representing nine departments, earned awards of \$100 or more. They included: V. F. Knettle of Dept. 545, \$398.90; H. A. Maleski of Dept. 280, \$361.85; T. T. Tsuda of Dept. 756, \$292.80; D. H. Branch of Dept. 521, \$182.15; J. B. Tompkins of Dept. 772, \$146.20; J. B. Belanger of Dept. 756, \$143.45; J. Zoll of Dept. 280, \$129.75; N. A. Sulek of Dept. 310, \$112.80; C. A. Hagman of Dept. 220, \$110.90; and D. E. Riley of Dept. 215, \$100.

Expected to ease the method of submitting ESs will be 25 new suggestion boxes of an improved design to be installed throughout Astronautics in the near future. The easy-to-recognize boxes will hold suggestion forms as well as provision for submitting completed forms. Cost reduction personnel will make regularly scheduled calls at each box weekly, according to E. E. Higgins, cost reduction assistant supervisor.

Until then, employees may utilize three boxes now located in the factory or call ext. 1178 for blank forms, Higgins said.

Engineers Compete

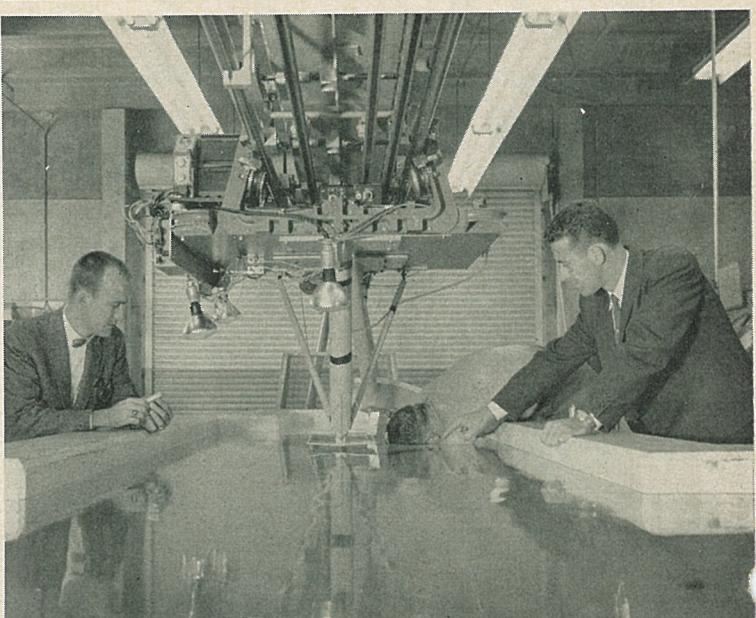
Over 400 were rooters last month when design groups of engineering at Convair Astronautics turned their second annual picnic into an athletic contest pitting one group against the other.

Taking part in softball, volleyball and wheel barrow competition, the design services group emerged victors just ahead of the propulsion development group.

Prospects Brighter For Sales Abroad

(Continued from Page 1)
880 is the only way to meet the competition."

Zevely was accompanied in Zurich by SD Chief Engineer Ralph Bayless. Also figuring in the negotiations were members of the Geneva Office headed by George Prill, European manager.



MONITOR—J. G. Wenzel, left, recently appointed coordinator for Convair SD's anti-submarine warfare efforts, confers on a test at SD's towing basin with R. H. Oversmith, senior hydrodynamic engineer, who handles hydro ballistic work. Partially "submerged" adjusting underwater rig is hydro's J. T. Byrne.

Coordinator Appointed On Anti-Sub Research

Increasing emphasis at Convair San Diego on anti-submarine warfare capabilities was reflected this month with appointment of a project coordinator to monitor all phases of the division's research and development in this field.

James G. Wenzel, design specialist, was named to the coordinating role, reporting to S. G. Frank Haas, chief development engineer.

Wenzel came to Convair SD some ten years ago, following a two-year tour with the U. S. Navy which culminated in a Naval Reserve commission. A University of Minnesota graduate, he received his MS in aeronautical engineering under a Convair fellowship and has been associated with aerodynamics, experimental flight and preliminary design at SD. He has also served as a lecturer on the Graduate Extension staff of the University of California since 1951 and is an Associate Fellow of the Royal Aeronautical Society and Institute of Aeronautical Sciences.

R. L. Bayless, SD chief engineer, explained that Convair SD has been active in ASW study for some time, both under Navy research contracts and independent company-financed programs.

"Increased emphasis on anti-submarine warfare research and development is in keeping with announced policy of General Dynamics Corporation, aimed at developing a strong ASW capability within the General Dynamics family," Bayless commented.

SD and Astro Pledge United Fund \$265,000

(Continued from Page 1)

the signer may wish.

To assist each employee in arriving at a figure in line with "fair share" giving, there is a printed table on back of each tab card based on income ranges. This table was drawn up after a study of all San Diego giving practices in the past.

Dick Mitchell, chairman of the Astro Employees' Committee, emphasized that this recommended "guide for giving" is merely that—a recommendation.

"We urge only that individuals support the many worthy causes represented in Con-Trib-Club in line with their own consciences and circumstances," Mitchell said.

Because the Astro Con-Trib-Club is a new one, having been separated recently from a joint Astro-San Diego operation, it will be necessary for all employees to sign cards whether they are currently Con-Trib

members or not.

However, two groups of Astro employees will not be included in the present drive. Those assigned to the Air Force Missile Test Center in Florida and the Missile Static Test Site at Edwards AFB conduct their campaigns at different times.

Work on the present drive has been progressing for some time.

Last week supervision in each of the 18 major functions and departments at Astro were briefed on details.

Group chairmen and campaign workers were named to handle mechanics of the drive.

Yesterday (Oct. 14) tab cards were passed along to these workers.

J. R. Dempsey, Astro manager has written a notice urging each employee to study the objectives of Con-Trib-Club and support them.

Daily reports will be submitted by groups during the campaign.



HEADING HOME—Convair travelers, shown here at takeoff, are in Paris today and due home this weekend. Group of 94, including San Diego and Astronautics folk as well as Pomona, are on three-week European tour.

Convairity

Founded Sept. 1, 1948. Published in six editions (Fort Worth-Daingerfield, San Diego, Astronautics, Pomona, Antelope Valley-Holloman and the Mail) by Convair Industrial Relations. General Offices, San Diego, Calif., Logan Jenkins, editor-in-chief.

Approximate current total circulation, over 65,000. News items and letters to the editor are solicited, but no advertising can be accepted.

SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Gracey Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weickersheimer, news editor.

FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone PErsing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr, Horace A. Baker Jr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337. Staff: Betty Lou Nash.

First Delta to Pay Visit To South America Gets A 'Big Hand' in Lima, Peru

A TF-102A hopped to South America last month on a good will mission as the first Convair-built jet interceptor to travel so far south.

The aircraft was one of a group of United States AF planes displayed at the Peruvian National Air Force Day observance at Lima Sept. 21-22 as a good neighbor gesture by the U. S. government.

The TF-102A, as prima donna of the show, attracted milling crowds of Peruvians unfamiliar with the delta wing design; carried dignitaries aloft through the sound barrier; and performed successfully, said J. E. Dodge, Convair SD field service representative. Dodge, as Convair's tech rep, accompanied the TF-102A, together with the ground support crew in a C-123.

Flying the Convair jet were Capt. Jack Furr of EADF, Stewart AFB, N.Y., project officer and coordinator of the trip, and Lt. Jack DeVault of the 325th FIS, Truax AFB.

Taking off from Truax at

was set up at Las Palmas air field.

Special delta wing pins and certificates went to Maj. Gen. Salvador Noya, commanding general of the Peruvian Air Force; Colonel Miguel Gonzales, chief of Peruvian AF training command; and Theodore C. Achilles, U. S. ambassador to Peru, as mementoes of their supersonic rides.

In attendance as representatives of the United States AF were Lt. Gen. Dean Strother, Lt. Gen. Joseph Atkinson, ADC commander, and Maj. Gen. Truman Landon.

"We were entertained royally all the time we were in Lima," said Dodge, "and found that everyone was extremely interested in our interceptor. All were eager to be friendly with the delegation from the United States. The general feeling was that most Peruvians regretted the unfortunate incident which occurred during Vice President Nixon's visit and couldn't do enough for us."

Other U. S. planes on display were a T-33, C-54, KC-97, C-130, SA-16, T-37, and the C-123.

Dodge explained that navigational aids are almost non-existent in that part of the hemisphere, so that the SA-16, an amphibian air-sea rescue craft, and the C-54 were used as radio contacts on long legs of the hop over water. They would pick up a navigational point and orbit as beacons to direct the other planes.

While waiting out a siege of rough weather in Talara, the base commander of the Peruvian Air Force 13th fighter group, Col. Jose Perez, was given a ride in the TF-102A.

Dodge said that the whole excursion was most satisfactory from every point of view. He especially commended the ground crew of the 327th Camron Squadron at Truax for its efficient support efforts in servicing the Convair jet to keep it at ready at all times.

Five Years Ago...

Following are brief excerpts from Convairity of five years ago:

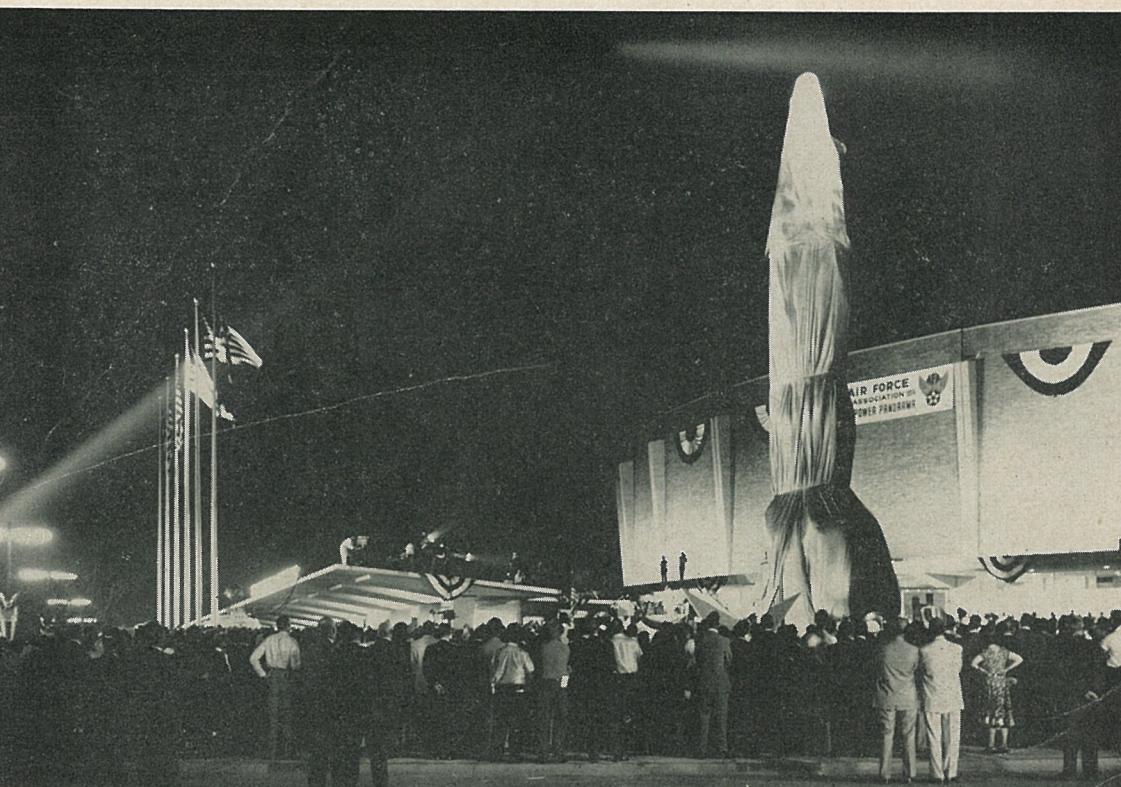
★ ★ ★
Design and production of YF-102 at Convair SD sets new national record for speed of manufacture for prototype of its size and complexity.

Lufthansa, new West German airline, signs contract to purchase four Convair-Liner Model 340s with option to buy seven additional.

Thomas G. Lanphier Jr., Convair vice president and assistant to the president, is elected president of the National Aeronautic Association.



"Too bad about old Schubart... he lost the only book that could show him where to go on his vacation—his check book."



PREMIERE—Like a Hollywood opening night was unveiling of Atlas missile at Dallas last month. Crowd is shown awaiting dramatic moment in front of Memorial Auditorium. Occasion was Air Force Association convention.

OVER 2,000 ATTEND FW FILM LECTURES ON SPACE SUBJECTS

Convair Fort Worth's 17-week series of filmed lectures on space technology has more than 2,385 people boning up on outer space at Technical High School every week.

The lectures, prepared by the nation's top scientists at the University of California, opened Oct. 6 with about 1,400 in attendance, according to H. C. Anderson, personnel department training assistant supervisor.

First shift participants attend the lectures on either Tuesday or Thursday nights. Second shift employees numbering about 180 hear the lectures in conference room 103 between 12 and 3 p.m. on either Monday, Tuesday or Thursday.

The lectures were made available to any Convair employee and members of his family at cost—about \$4.35 per person for the series. About 350 of those who signed are non-engineers, and 20 to 30 employees arranged for their entire families to attend.

Blood Call Sounded In Factory Building

Canvassing of all employees working in the Astronautics factory (Bldg. 5) on the first shift was to start next week in anticipation of an Oct. 30 bloodmobile visit set for the mockup conference room.

Enough volunteer donors are needed to supply 200 pints of blood which will maintain an in the "black" balance to Astro's credit over the next three months. Bloodmobile visits are being scheduled every three months at Astro.

Plant 1 Will Give Blood on Oct. 23

A call is out for blood donors at Plant 1 Convair SD for the next bloodmobile visit Oct. 23.

Day shift volunteers in Bldgs. 2, 7, 8, 14, 16, and 32 will sign through supervision to boost Convair SD's blood credit. The bloodmobile will be located on the first floor of Bldg. 14, Rooms 1 and 2, from 8:30 a.m. to 12:30 p.m.

Dempsey to Chairman Spring Science Fair

J. R. Dempsey, Convair vice president and Astronautics manager, has accepted a post as chairman of the board for the fifth Greater San Diego Science Fair to be held in the spring.

The fair annually attracts outstanding exhibits of scientific projects of secondary school students. Last year 200 exhibits were shown from more than 600 entries.



IN LIMELIGHT—Convair was much in evidence at Air Force Association convention. Shown at General Dynamics booth are, from left, J. V. Naish, president of Convair, Edward F. Jones, Washington public relations, Thomas G. Lanphier, Convair vice president.

Atlas Unveiling Steals Show At AF Association Conference

Convair gave the public its first unguarded view of the nation's first intercontinental ballistic in-being—the Atlas—as well as a prophetic look into the future at the annual Air Force Association conference in Dallas last month.

The Atlas was displayed in shining splendor on the lawn in front of Dallas Memorial Auditorium, and the look into the future came in the Convair futuristic booth inside.

Convair President J. V. Naish joined with Gen. Thomas D. White, Chief of Staff of the Air Force, Gen. Thomas S. Power, commander of Strategic Air Command, and other dignitaries to unveil the 85-foot Atlas in a brief ceremony on Sept. 25. Also participating in the unveiling ceremony was J. R. Dempsey, manager of Convair Astronautics which produces the Atlas.

The missile, which had been erected to upright position in the early morning hours, was shrouded in an Air Force blue cover from top to bottom. Most dramatic moment of the AFA conference and Airpower Panorama came when ropes were pulled away to reveal the gleaming Atlas in the spotlights as an audience of several thousand applauded.

The Atlas continued to be the major attraction throughout the three-day Airpower Panorama, but Convair's booth inside also drew its share of attention with a cutaway model of the Atlas and a three-dimensional view of outer space.

The Atlas model showed how the missile, built by Convair Astronautics at San Diego, can be modified to put a crew of men into orbit around the earth.

Those participating in the AFA conference sessions included Thomas G. Lanphier Jr., Convair vice president, and representatives from each Convair plant, as well as from Washington, D.C., Dayton, O., San Antonio, and other offices.

B-58 Shines Too

Supersonic B-58 Hustlers in the air and on the ground were major attractions at the Carswell Air Force Base air show Sept. 25 for delegates attending the national Air Force Association conference.

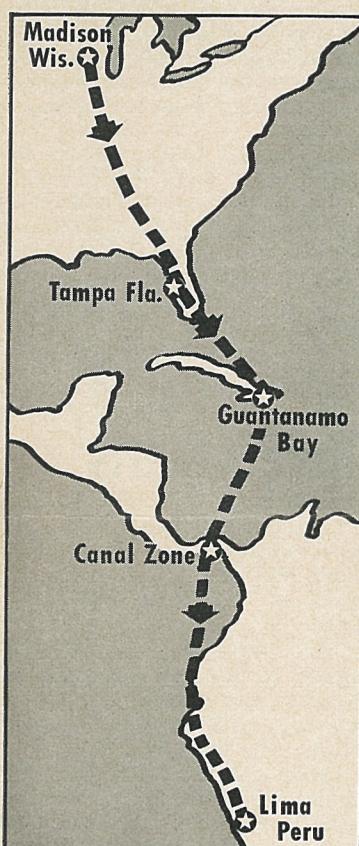
Demonstrating B-58s in the air were B. A. Erickson, Convair Fort Worth manager of flight, at the controls of one Hustler, and G. I. Davis piloting another.

Each made two flybys—one at low speed to give spectators a chance to see the B-58 in the air, and a second at high subsonic speeds at low altitude.

On the ground, the Air Force displayed virtually every type jet aircraft in its inventory, but it was the B-58 again which was the center of attraction. Long lines of delegates queued up to take a look inside. Maj. Lee Amos, Air Force B-58 pilot in Carswell's B-58 Test Force, explained interior features.

Sharing the limelight was an F-106 Delta Dart, big brother of Convair's famous F-102 delta wing interceptor. Capt. Henry C. Gordon, who flew the airplane to Fort Worth from Edwards AF Base, briefed visitors on the high-altitude, all-weather interceptor.

Representing Convair Fort Worth at the demonstration was August C. Esenwein, Convair vice president and division manager, and Mrs. Esenwein.





BACK STAGE—Astro fashion show witnessed by over 500 persons Oct. 2 was a model of efficiency out front. Back stage was another matter. Girls had to dash from foot of circular staircase, into adjoining building, up an elevator and back to dressing room for changes. Shown behind scenes are models Doris Hanson, Linda Carl and Lorraine Sem. Standing is Jean Bryan, CRA Women's Council president.

Astro Traveling Team Climbs to League Lead

With one month of action under their belts, Convair Astro-nautics keglers on 128 CRA teams are finding some leagues following established leaders and others in a topsy, turvy race for first place.

Astro's Monday traveling team has climbed on top in that outside league on the strength of strong series by Tony Minniti, Erv Campbell, Bob Baker, Walt Sauer and Jim Van Caster.

In the Tuesday Highball league Capt. Jack Rankin's Bloody Pirates No. 1 held a three-game lead over the Bloody Pirates No. 2 and the Astronauts. There are but seven games separating the first and last-place teams in this 12-team loop. H. Bailey has high game with a 252 and Bob Erv high series, 656.

The Tuesday mixed handicap loop is being led by the Computing team with a 12-4 record, trailed by the Bombers with a 10-6 slate. Eric Hertz paces the men's game totals with a 268 with J. Friedman shooting high

series with a 722. Jerrie Slusher paces the fems with both high game and series.

The Thursday 750 mixed league is chasing the Orbiteers in first place, two games ahead of the Count Downers. Lloyd Carlson's 250 is high men's game, Gene Koch's 689 is high men's series. Mary White has a 240 game and R. Bender a 598 series for the women.

The Sad Six hold a slim two-game lead in the Thursday 750 men's loop over the Electro Pilots. C. Turley's 282 game and R. Altmeyer's 695 series are high.

Closely bunched are the teams in the Thursday 625 league with only seven games separating first and last. Slight edge goes to the Spacers with a one-game margin over the Gusstimators. Don Langbridge shot a 258 game and 704 series for high men's, while Mary Barber's 225 and 600 totals lead the fems.

Capt. "Frenchy" Gillette's Sparklets have won 12 straight games in the Friday Product Support loop but hold only a one-game margin over the Moon Shots and Logs. Dick Bogardus has a 246 game and is deadlocked with W. Clark with a 627 series in the men's totals. Mary Bogardus shot a 206 and J. Kerkhoff a 556 for women's high.

Four teams are deadlocked for third in the Sycamore Canyon loop behind the pace-setting Coordinators and the second-place Canyon Cats. Virginia Nidiffer holds high women's game with a 188, while Lee Vierra's 474 series is high. Dick Dray's 212 game and Larry Greathouse's 546 series are high for the men.

The Kracker Jax and the Flying Astros are tied for first in the Tuesday 750 mixed loop with four teams ranging close behind tied for third. Again the margin between first and last is seven games. S. Russell shot a 231 game and M. Curtis a 589 series for the women, while Willard Brassell's 243 game and 678 series are tops for the males.

The Tuesday 675 mixed league is even more mixed up. Four games separate the first and last teams. The Spinners are on top ahead of the tied Lane Lovers and Woodpeckers. P. Mollenkamp and J. Fountain are tied for high men's game and Mollenkamp leads the high series with a 672. Mary Brammell paces the fems with a 209 game, 583 series.

The Astro Classic loop finds the Gators one game ahead of the Cueballs. Pete Nico's 236 game was matched by Jack Detweiler, while Ralph Loh has a 605 high series.

The Tuesday 600 mixed loop is being paced by the Gutter Dusters. B. Roper has a 245 game, G. Owens a 617 series for the men. L. Smith's 217 game and Dottie Hood's 590 series are high for the girls.

CRA Calendar

(Convair Recreation Association has over 25 organized activities now staging regular events and a number of others still forming. For information on any CRA activity call ext. 1111.)

ART CLUB—Meets every Tuesday at 7:30 p.m., Astro cafeteria.

ARCHERY—Business meeting at 7:30 p.m. Oct. 16, cafeteria.

BADMINTON—Open play and instruction 7:30 p.m. Tuesdays at Federal Bldg., Balboa Park.

BALLROOM DANCING—Beginning adult classes at 8 p.m. Tuesdays and Wednesdays, beginning teen-age classes at 7:30 p.m. Wednesdays at McGrath Studio, 1322 Fifth Ave.

BASEBALL—League play each Sunday, various parks. Players still needed. Contact Ray Mendoza, ext. 1111.

BASKETBALL—Practice session for experienced players at 7 p.m. Oct. 16, Muni Gym.

BIBLE CLUB—Group discussions noon Tuesdays and Thursdays, conference room, fourth floor, Bldg. 3; at 11:45 a.m. Mondays and Wednesdays, electronics conference room, Bldg. 3; daily from 11 until 11:45 in Room 9, Bldg. 17.

BRIDGE CLUB—Meets second, fourth Thursdays at 7:30 p.m., Barcelona Bridge Club, 4th and Juniper Sts.

CHORAL CLUB (men's)—Now forming, contact Ray Mendoza, ext. 1111.

COIN CLUB—Meets last Wednesday each month, 7:30 p.m. at cafeteria.

GOLF—Second, final rounds of plant championship Oct. 19-26 at Flying Hills.

GUN CLUB—Turkey shoot Nov. 2 at Gillespie Field.

MODEL RAILROAD—Meets with San Diego Model RR Club at 7 p.m. each Friday, House of Charm, Balboa Park.

PISTOL CLUB—Shoots second and fourth Sunday at 9 a.m., San Diego Police Range.

RADIO CLUB—Meets 7 p.m. Oct. 16 at cafeteria; second shift at 1:15 p.m. same date, Col. K-1, Bldg. 5.

RIDING CLUB—Trail ride at 10:30 a.m. Oct. 26 from new arena at Astro recreation area. Call F. W. Augustine, ext. 311, to reserve rental horses by Oct. 22.

ROCKHOUNDS—Forming, contact Ray Mendoza, ext. 1111.

SNOW SKI—Meeting 7:30 p.m. Nov. 5 at cafeteria to elect officers.

SPORTS CAR CLUB—Meeting at 7:30 p.m. Oct. 23 Astro executive dining room, fun event follows.

SQUARE DANCE—Beginners dancing at 8 p.m. each Friday, American Legion Hall, 4061 Fairmount Ave.

TENNIS—Matches Oct. 25-26 Morley Field. Enter by Oct. 23. Contact Larry Chambers, ext. 1841, Plant 1.

WATER SKI—Forming, contact Ray Mendoza, ext. 1111.

Indian Reservation Field Trip Planned

A field trip to an Indian reservation in the Lakeside area is being planned for Oct. 26 by members of the Convair Astronautics Rockhounds.

Although final details are yet to be formulated, interested persons may contact Bunny at ext. 1111 or Viola Beard at ext. 860 for further details.

COMMITTEE TO HELP RUN BRIDGE CLUB

A special committee to assist in operating Convair Astronautics Bridge Club activities will be named Oct. 23 when that group holds a regular meeting at Barcelona Bridge Club, 4th and Juniper, at 7:30 p.m. Old and new members are invited to be on hand.

TICKET INFO AVAILABLE TO PLANT 1 ASTRO FOLKS

Astronautics personnel working at Plant 1 may now obtain tickets, CRA information, etc., through Rosemary at ext. 1920. She is located at Col. A-9 on the mezzanine of Bldg. 4.



SWIFT SORTING—New battery-powered mail truck in use at Astronautics makes possible faster mail service in factory. Shown on rounds are mail clerks James Blake (in the "slot") with Leno McDonald driving.

En Route Mail Sorting Speeds Astronautics Factory Service

A new mail service which will increase factory deliveries to an hourly schedule is in the offing at Convair Astronautics.

Making possible improved service is a new Astro-designed, battery-powered mail truck. This truck, equipped with a slotted rack on back, will permit mail sorting between pick-up points.

It replaces a practice of collecting mail, returning it to the main post office for sorting, then returning it to the designer.

The new service will bring factory mail service up to the same level available in other areas of the plant.

Astro currently employs 11 mail clerks. They work staggered shifts which make possible 12-hour mail service daily. During September, these clerks handled in excess of 275,896 pieces of mail ranging from postcards to packages.

Astro mail trucks call at the San Diego Post Office three times daily. They also make four runs each day to Plant 1, Mallen Bldg. and Barnard School. Other off-site locations receive service dependent upon transportation bus schedules.

Sale of Dance Tickets Starts

Tickets for the Oct. 25 buffet dinner-dance slated by the Convair Astronautics Management Club were to go on sale this week at all normal ticket outlets.

The affair, first social event slated by the new club, will be held in the Crown and Circus Rooms of Hotel del Coronado. Music will be provided by Bart Hazlett and Grady Howard and their orchestras. Social hour begins at 7 p.m., the buffet dinner will be served from 8 p.m. and dancing starts at 9 p.m.

Dick Campbell, chairman of the sponsoring engineering department, indicated this week that only 900 tickets will be sold due to limited space. Assisting Campbell in arrangements are Stan Stewart, Ernie Wade, George Oliver, Walt Varner and Al Mardel.

Golf Class Strictly For Women Forecast

Encouraged by the turnout for special group golf instruction earlier this year, Astro CRA is considering sponsoring special Saturday morning lessons strictly for women, according to Commissioner Art King.

Tentative plans call for holding the sessions at 9 a.m. each Saturday at Mission Valley Country Club. Cost will be \$10 for six lessons. Students will be allowed to play the Palm Course following lessons.

Those interested may contact Lee Stone at ext. 1333.

Gary Russell Wins Industrial Crown

Gary Russell, reigning tennis champion at Convair Astronautics, added additional laurels to his credit Oct. 5 when he won the San Diego Industrial singles crown.

Russell bested Ed Pugh of Ryan, 7-5, 6-2, for the singles victory, then teamed with Larry Chambers, CRA tennis commissioner at Astro, to win the doubles crown over John Cannau and Jack Bowers of Astro by a 6-2, 10-8 count.

Log Book Entries

Promotions

ASTRONAUTICS

Promotions and transfers to supervisor effective Sept. 29:

Dept. 211, Purchasing: To buying supervisor, F. G. Blakefield. To general purchasing agent, E. Fellows Jr. To purchasing services asst. supervisor, D. S. Stone. To purchasing agent, W. S. Tucker.

Dept. 215, Material Control: To material control asst. supervisor, G. D. Ford.

Dept. 250, Plant Engineering: To general foreman, W. C. Bayne. To foreman, Group V, V. W. Dimpel, A. T. Jolliff. To asst. foreman, Group III, M. C. Escareno, J. A. Salyer. To asst. general foreman, B. A. Rusk. To asst. foreman, Group V, G. H. Wolske.

Dept. 280, Inspection: To inspection asst. supervisor, Group III, W. G. Norton.

Dept. 300, Product Support: To asst. supervisor GFE, R. A. Bonsignore. To traffic administration asst. supervisor, H. C. Cyr.

Dept. 321-5, Customer Training: To customer training asst. supervisor, R. D. Bergan.

Dept. 461, Tool Cribs: To asst. foreman, Group I, D. W. Quinlan.

Dept. 510-4, Engineering Studies & WS 117L Office: To asst. project engineer, E. S. Penick Jr.

Dept. 573, Convair Operations—Sycamore: To asst. group engineer, R. M. Hart. To inspection asst. supervisor, Group V, E. H. Johnson. To M/C asst. foreman, E. L. Staets Jr.

VANDBERG AFB

Dept. 576, Convair Operations—Vandenberg AFB: To asst. foreman, Group V, F. A. Rado. To asst. foreman transportation, E. B. Roberts.

Service Emblems

ASTRONAUTICS

Service emblems due during the period Oct. 1 through Oct. 15:

Ten-year: Dept. 211-3, L. E. LaBerge; Dept. 531-4, J. E. Hyde; Dept. 541-7, F. C. Rosacker; Dept. 570-1, R. A. Ackley; Dept. 578-1, W. J. Hammond; Dept. 758-0, Anthony DeHeus; Dept. 771, L. C. Stone.

PATRICK AFB

Service emblem due Oct. 3:

Ten-year: Dept. 571-8, D. C. Larson.

Births

ASTRONAUTICS

PINONI—Daughter, Cathy Ann, 6 lbs., 9 1/2 ozs., born Sept. 19 to Mr. and Mrs. E. A. Pinoni, Dept. 579-5.

GERTH—Daughter, Helen Colleen, 7 lbs., born Sept. 17 to Mr. and Mrs. W. A. Gertz, Dept. 582-1.



SHOOTERS' HOLIDAY—Over 50 Convair San Diego and Astronautics gun enthusiasts turned out for meet at Gillespie Field recently. In center photo, shooters await turns in novel skeet-trap event, while Jayne Davis of Astro fires away at

elusive target. Left photo: E. L. Johnston and C. L. Pharis, chairmen, arrange schedule of events. At right, Johnston presents prizes to winners (left to right), W. Gatterman (SD), J. P. Singleton and A. L. Bernitz of Astro.

NEW SCHEDULE, DUES DECIDED FOR GOLF CLUB

New Convair Golf Club policies were established at a reorganizational meeting held early this month.

New yearly dues of \$3.50 were set to support the 1959 budget. F. W. Kelly, club vice president, said the '59 membership drive will open Nov. 1. Mort Smith (SD Dept. 6) will head the committee.

Those buying membership at that time will automatically receive an extra month's bonus (for December of '58).

Monthly meetings will no longer be held, Kelly said. Instead, the club has decided to convene quarterly. Entertainment at the quarterly meetings will include guest golf stars and movies of club members in action on courses.

New schedule of club tournaments is now being planned, Kelly added. Winner of the top door prize at the meeting was Chick Quinton (SD Dept. 292). He won a golf cart.

J. R. Oliver to Lead Astro Pistol Team

J. R. Oliver (Dept. 131-1) scored a double at the Sept. 28 shoot held by the Astro Pistol Club and earned top spot on a new Astronautics team selected for outside competition.

Oliver copped the master class of the .22 shoot and won first in the .45 short National match. Other winners in the .22 event were: expert, R. M. Raymond; sharpshooter, R. C. Crosley; and marksman, E. B. Maiers, K. W. Bunker and W. W. Bacon trailed Oliver in the .45 matches.

Oliver had an aggregate score of 845 out of possible 900 in determining team positions. Second was Bunker with 806, followed by W. C. Geopfarth with 777, Bacon with 762 and Raymond with 704.

Shoots are staged the second and fourth Sundays of every month at San Diego Police Range. Instruction is available for beginners.

★ ★ ★

J. R. Oliver Named Pistol Club Prexy

J. R. Oliver (Dept. 131-1) was named president of the Astro Pistol Club at a Sept. 25 meeting.

Other officers are: R. C. Crosley (USAF), vice president; A. C. Bove (Dept. 220), secretary-treasurer; and W. W. Bacon, (Dept. 130-1), range officer.

The club shoots the second and fourth Sundays at 9 a.m. at the San Diego Police Pistol Range.

ARCHERS WILL HOLD BUSINESS SESSION

Archers at Astro will hold a business meeting at 7:30 p.m. tomorrow (Oct. 16) at the Astro cafeteria. Refreshments will be served.

CRA

Sports & Recreation Convairiety



ROUGH ASSIGNMENT—Two construction buildings at Astronautics have been turned over to CRA for use as clubhouse. They are being prepared for move by crews like the one shown above. Most are volunteers. Work parties are needed for Saturdays and Sundays.

Help! More Volunteers For CRA Area Required

Convair Recreation Association at Astronautics passed two major milestones last week in its bid to develop a new recreation area on a 26-acre tract adjacent to the new plant.

The first was a short ceremony honoring 16 men and women as charter members of a new "20-hour" club within CRA. Then came work aimed at preparing two buildings for moves to the site where they will become CRA's first official meeting sites.

CRA earlier announced a plan for presenting "Effie" (for effort) awards to men and women who log 20 hours of time working in the area. The "Effie" is a small ceramic and metal ash tray suitably inscribed with the recipient's name, etc. Of the almost 500 men and women who have helped in the development of the area, only 16 had the minimum hours required.

However, many others are nearing the totals required.

Two buildings used during construction of the new Astro plant have been made available to CRA for use as meeting sites. However, they must be moved from their present locations to the

recreation area.

Work crews have been assisting hired movers in readying the two structures. Additional work parties are needed for both Saturday and Sunday help for weeks to come.

In addition, much more remains to be done in the area before grass can be planted. This, too, is being accomplished on weekends.

Employees wishing to help are invited to come out when they can, signing in as they enter the area.

Astro's Guns Dominate Joint 'Ske-trap' Event

Astro sharpshooters finished one, two, three in a crazy, mixed-up event staged Oct. 5 by the Astro Gun Club in conjunction with the San Diego Gun Club at Gillespie Field.

Billed as a "Ske-trap" event, the affair proved to be one of the most baffling ever staged at the CRA area. It consisted of

Hams Select Club Officers

Astronautics Radio Club members elected a full slate of officers and directors at a Sept. 25 meeting staged at the Astro cafeteria.

Elected were: Frank Kemper (W6QNM), station trustee; Ed Dodero (W6KBX), president; J. A. Nelson (K6AMJ), vice president; Al Levon Jr. (W8VNL/6), secretary; Bonnie Taylor (W6WXI), treasurer; Jim Carr (W6FAY), station engineer; and Tom Eckles (W6ATZ), chairman program for the second shift.

The club has submitted a request for equipment necessary for establishing a full station under CRA-sponsorship. Arrangements are being made for a "ham" room within the new CRA Clubhouse.

Next meeting of the group will be at 7 p.m. Oct. 16 at Astro's cafeteria. Second shift members will meet the same day at 1:15 p.m. in the conference room, Column K-1, Bldg. 5.

Convair-Rohr Chess Match Ends in Tie

A Convair chess team met with its Rohr aircraft counterpart two Sundays ago and after a few hours of diligent concentration neither team emerged the victor. Both teams tallied six points to tie.

Convair Astronautics members on the team included John Hornig and Richard Whittemore.

trap shot from skeet positions. Because of a ruling calling for a miss to eliminate a contestant, none of the 134 starters made the complete course.

Top score of the day was fired by Ezra Johnson, CRA Gun Club commissioner at Astro. He had a 10! Following were Astro's Leo Bernitz with a 9 and J. P. Singleton with an 8. Next in line came Jack Swank, SD commissioner, with a 5 and Warner Gatterman of SD with a 4. Swank and Johnson declined prizes presented to the five top guns.

In addition, regular skeet and trap rounds were fired.

Junior shooters came out in force to participate in the small bore rifle shoot won by Harold Schnaubelt. Harold Hamby and J. P. Miller finished second and third.

Next Astro Gun Club event will be a trap, skeet and rifle turkey shoot slated for Nov. 2 at the Gillespie Field range.

NEW RIDING CLUB PLANS TRAIL TRIP

Astronautics' new Riding Club will hold its first event of the year Oct. 26 with a special three-hour trail ride to originate at the new Astro riding ring in the CRA recreation area.

Equestrians will depart the area at 10:30, enjoying lunch on the trail. There is no charge for the ride, although each rider must bring his own lunch.

F. W. Augustine is arranging to have rental horses available at the starting point. However, he must be notified by Oct. 22 for reservations. Individuals will pay for their own mounts.

Contact Augustine at ext. 311 for details and reservations.

Oct. 23 Deadline Set For Tennis Tourney

Deadline for entering the Convair Astronautics CRA tennis tournament slated for Oct. 25-26 at Morley Field is Oct. 23.

Entries will be taken by CRA Commissioner Larry Chambers at ext. 1841, Plant 1. Men's singles and doubles and women's singles events will be held.

Romance Blossoms On Astro Alleys

One Astro bowling team captain has come upon a good idea for retaining his league secretary (keeper of records, poster of scores, etc.). He's marrying her.

Bert Peterson, one of the leaders of the Tuesday 600 mixed handicap league, and Dottie Hood, a member of his team and league secretary, will be married Oct. 24 at Christ Lutheran Church, La Mesa. They met about 18 months ago on blind date, started bowling together for the first time this winter.

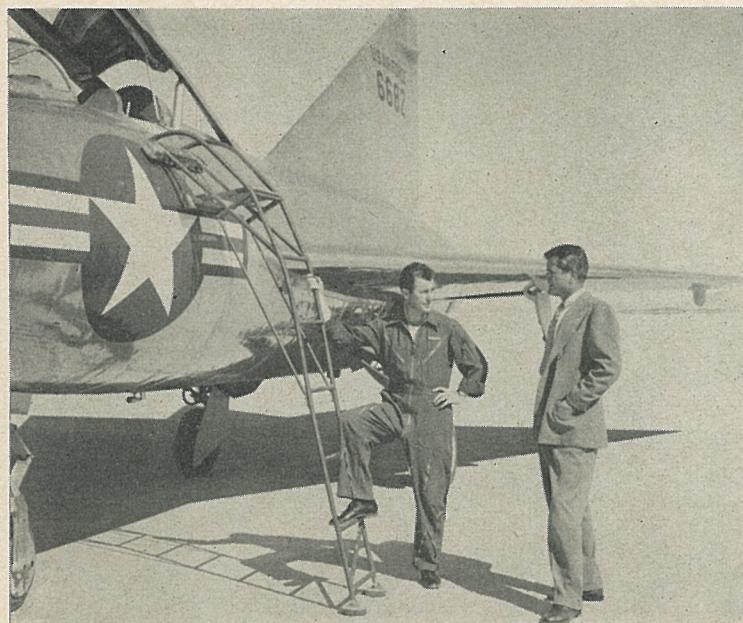


CHARTER MEMBERS—These Astro men, plus two others, have each worked 20 hours or more in new CRA recreation area. They received "Effie" awards last week at special ceremony. Not shown are Gladys Raynaud and John Leib. Volunteers are needed each weekend to assist in many tasks in the area. Big job coming up is moving of two buildings.

Strong Team Slated For City Hoop Loop

Astronautics hopes to field a strong team in city basketball action this season from candidates who turn out tomorrow (Oct. 16) night at 7 p.m. for team tryouts at Muni Gym.

Bob Ballard, former UCLA great, will direct tryouts.



MEMORIES—World-famous XF-92A as it looked ten years ago with Capt. (now Lt. Col.) Charles Yeager, AF test pilot, and Sam Shannon, who made first flight for Convair.

Convairiety Wins Another First, Best in Mid-Continent Region

Convairiety garnered its second blue ribbon first place award as a company publication at the International Council of Industrial Editors mid-continent conference at Austin, Texas, Oct. 1.

The publication was ranked by ICIE judges as first place winner in its category, the second first place award to come Convairiety's way this year. Earlier it was named by ICIE as No. 1 in the nation among newspapers of its type.

In the newest competition, Convairiety was pitted against company publications of the 12-state mid-continent region. Some 150 publications were entered in

the competition.

Second place in its category was the publication of the Lone Star Gas Co., Dallas. Third place went to the Vought Vanguard published by Chance Vought Aircraft, Inc., Dallas.

The latest award was announced at the ICIE awards luncheon in Hotel Driskill in Austin Oct. 1, where Loyd L. Turner, special assistant to the division manager at Convair Fort Worth, spoke on a panel at the conference. The award was accepted by Bob Vollmer, Convairiety's Fort Worth editor.

The certificate awarded by ICIE states that it is "in recognition of exceptional accomplishment in achievement of purpose, excellence of editorial content and effectiveness of design."

SD Training Moves Upstairs in Bldg. 14 In Temporary Shift

Training offices at Convair SD are located temporarily on the second floor of Bldg. 14, according to H. W. Rubottom, chief of training.

In a three-way move, industrial security and ID functions are now in their new permanent quarters in the southeast corner of Bldg. 2. Training offices have been moved from the lower floor of Bldg. 14, vacating the entire floor for rehabilitation.

After Bldg. 14's first floor is remodeled it will be occupied by offices of Dr. F. M. Amaral, SD chief plant physician, allowing the second floor of the hospital (Bldg. 15) to go into renovation work.

At completion of that part of the remodeling program, training will expand to the second floor of Bldg. 15, and the medical department will take over the entire first floor of Bldg. 14.

According to Rubottom, training section has retained exts. 491 and 492, and added exts. 2568 and 2569 as new plant numbers.

XF-92 Reunion To Recall First Flight in 1948

Memories of the XF-92A, world's first true delta wing plane, will be revived in San Diego Oct. 22 at a gathering to commemorate the tenth anniversary of the first flight.

Invitations have gone out to about 40 who were most closely associated with the research plane project which made possible the design for the F-102 and F-106 jet interceptors. Key personnel selected from all phases of the effort, engineering, shop, flight, are expected to come from points as far distant as Fort Worth, Texas, and Washington, D. C. to attend the reunion at San Diego's Town and Country Hotel.

B. F. Coggan, San Diego Division manager and Convair vice president, will act as master of ceremonies. E. D. "Sam" Shannon, who as test pilot took the XF-92A up for its first flight, and Adolph Burstein, chief design engineer on the project, now assistant chief engineer for research and development, are expected to recount their experiences during that time. It is hoped that Lt. Col. Charles Yeager, first AF pilot to fly the plane now on duty in Spain, may be able to attend.

The XF-92A, permanently grounded in 1954, is used now as an AF traveling display with home base at Wright-Patterson AFB, Dayton, Ohio.

SD Nurses Attend Health Meetings

Two Convair SD nurses represented the company at recent industrial nurses conferences.

Dorothy Scrivener (Dept. 3-5) was in New York Sept. 26-27 as first representative of the SD Industrial Nurses Association at the American Association of Industrial Nurses presidents' gathering.

Helen Werdelman, also of Dept. 3-5, returned recently from the Oct. 3-5 Western Health Conference at San Francisco where she represented the Western Industrial Nurses Association and Convair.

Automatic Tooling Creates Parts For Wind Tunnel Model

Automatic tooling method at Convair SD has proved its worth in the turning out of parts for a wind tunnel model in one-tenth the normal time required.

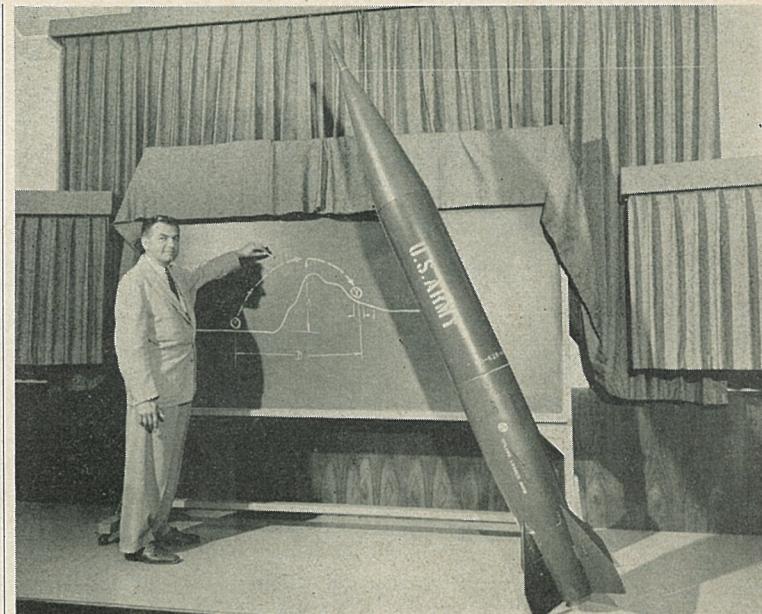
Used as the first practical project on the magnetic tape-controlled Giddings & Lewis profiler at Plant 2, a one-twentieth scale model of the wing for an F-106 was turned out this summer.

Aerodynamic engineers in charge of the project said that the revolutionary method will not only cut time and costs in construction of wind tunnel models, but will result in closer tolerances. The automatic tooling machines can tool parts three times as accurately as humans. It has been found that the machines can work to .001 of an inch, while the nearest tolerance that a man can achieve is up to .003 of an inch.

Set up as the first trial operation of the new numerical control group at Convair SD, R. F. Mawhinney and Fred D. Breuer, aerodynamic engineers, were assigned the job of programming the project from design through construction and testing. Their particular problem was to produce a design of an F-106 wing to lessen the drag. By reducing the thickness of the wing, they felt that they had found the solution, later proved out in tests at the Southern California cooperative wind tunnel in Pasadena.

Using the new design, they set up the engineering equations for the numerical control group, which were converted into directions on magnetic tape for the automatic horizontal miller.

The task, which took only a



SUPPLY LINE—W. F. Chana, managing new Lobber program at San Diego, chalks typical situation in which troops could be supplied by missiles lobbed over enemy territory. Something similar developed in World War II when surrounded troops got supplies in howitzer shells!

Supply Missile Designed For Army Use in Field

Design by Convair of a new system of delivering military supplies to troops in the field—by ballistic missile—was revealed last week by Lawrence B. Richardson, senior vice president-engineering, for General Dynamics Corporation.

Called "Lobber," the missile was developed for the U. S. Army by Convair San Diego.

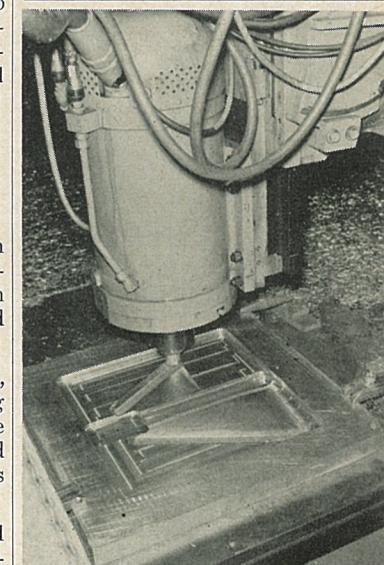
The missile can deliver rations, ammunition, medicines, etc., accurately and in quantity to frontline troops, Richardson said. At least 70 per cent of each missile will be recoverable and can be re-used.

Convair SD studies were sparked originally by a brief newspaper story quoting Maj. Gen. A. T. McNamara, U. S. Army quartermaster general, as expressing interest in a ballistic approach to Army logistics. SD pre-design's Tom Woersching brought the clipping to the attention of W. E. Strohmeyer, chief of Convair SD missile predesign, who assigned Nash Williams to investigate. Working with Robert Van Tuyl, Williams explored possibilities and a formal

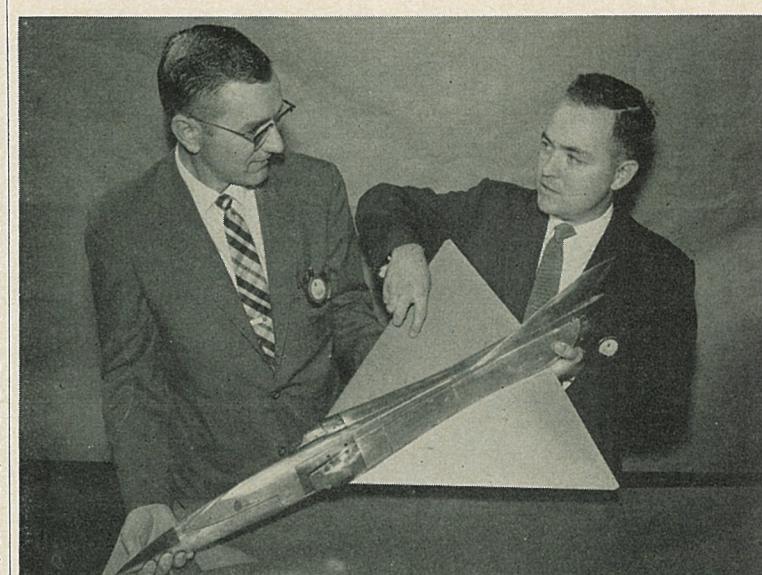
proposal ultimately was forthcoming.

McNamara's foresight, Richardson said, was based on a World War II situation wherein elements of the First Army, cut off during a German counter attack, were supplied with food and emergency material, packed in 105 mm. howitzer shells and lobbed over the enemy's heads into American-held territory.

Appointments to a Lobber "project team" were made recently by B. F. Coggan, San Diego Division manager. Heading the project is W. F. Chana, formerly of service engineering, who now reports to Strohmeyer. Others on the Lobber "team" include R. H. Ridnour for engineering; A. B. McFarland for manufacturing; E. J. Steeger for test and demonstration; W. H. Moller for military relations; E. A. Brook for planning and scheduling; R. L. Donoghue and M. A. Grove for material; J. S. Blakely for accounting.



IN ACTION—Automatic profiler tools wings for F-106 model, more accurately than man-made parts.



LOOK! NO HANDS—F. D. Breuer and R. F. Mawhinney, SD aerodynamic engineers, point to wings on F-106 wind tunnel model, first to be tooled automatically.



"Decisions, Decisions, Decisions!"



Published every other Wednesday.



Convair Division of General Dynamics Corporation.

Convairity

Vol. 11, No. 23

Wednesday, November 12, 1958

SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

52

DAINGERFIELD AND FORT WORTH, TEXAS



POISED—This was scene last month at Tyndall AFB, Panama City, Fla., where F-102s competed in realistic weapons competition. Central Air Defense Force team from Richards-Gebaur AFB won.

F-102s 'Splash' Jet Drones in Realistic Test

F-102s of the Air Defense Command flew rain or shine, knocking jet drones out of the skies through ten days of grueling war games last month at Tyndall AFB, Florida, without a single abort.

The four competing F-102 fighter-interceptor squadrons each sent five airplanes to the weapons meet. Three of each five were "primary" aircraft and the other two in reserve in case one of the primary ships could not be used because of a maintenance or other difficulty. Not once did a member of the "first team" fail to enter the game!

First place in the scoring went to the 326th FIS, representing the Central Air Defense Force, with 39,900 points. The squadron is from Richards-Gebaur AFB and the team was captained by Col. John H. Bell.

Leader of individual scoring among F-102 pilots was Col. Roy B. Caviness of the 482nd FIS from Seymour-Johnson AFB with 32,900 points.

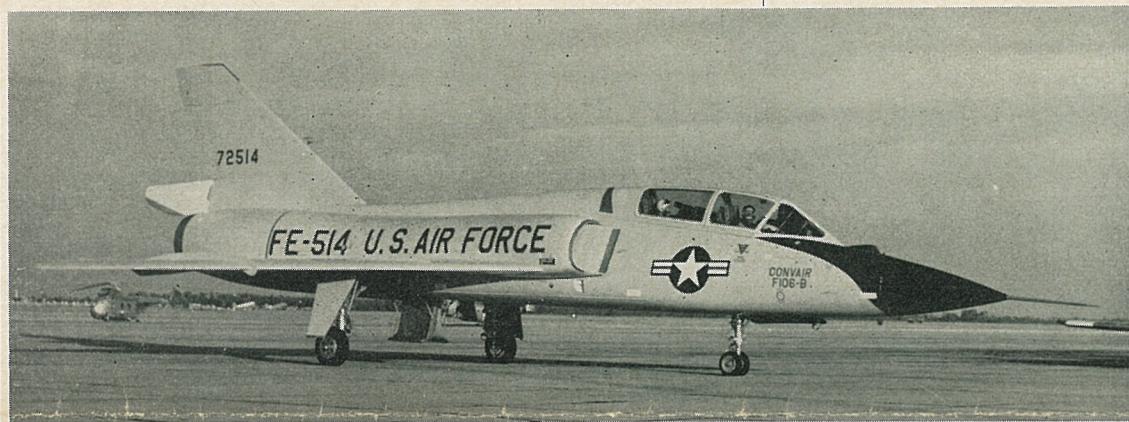
Each team flew six missions, four at "low" altitudes (around 10,000 feet) and two at "high" (over 30,000 feet). Targets were jet-powered drones which were taken aloft by a B-26 (one under each wing) and released at altitude. Radio control from the B-26 was used to get the drone on course, after which control switched to the base.

Although the weather was clear for most of the meet there were two days of overcast, fog and drizzling rain. The weather failed to affect F-102 attacks in the slightest.

Members of the Convair delegation present for the USAF's World-Wide Weapons Meet returned home proud of the manner in which the F-102 acquitted itself in "combat" and much impressed by the smooth and efficient organization of the meet itself. There were raves about the television coverage.

Television cameras mounted in F-102 chase planes covered the F-102 attacks, while TF-102s were used to cover the attacks of the other competing airplanes (F-86s and F-89s) with the cameramen using a hand camera. Clear views were picked up on TV screens at the base as well as on private sets in homes within a large radius. Commentary accompanied the action account.

"Tyndall AFB did a simply marvelous job in organizing and (Continued on Page 2)



F-106B ON ARRIVAL—With Lt. Gen. C. S. Irvine in back seat, Capt. Frank Forsyth of Palmdale brings F-106B to halt at Tyndall AFB for demonstration flights during weapons meet. General Irvine was passenger from Kelly AFB to Tyndall.

F-106B Big Hit At USAF Meet

An F-106B, flown to Tyndall AFB, Florida for demonstration flights during USAF's World-Wide Weapons Meet, was a highlight of the ten-day meeting.

Capt. Frank Forsyth, AF officer in charge at Convair Palmdale, piloted the plane on 24 separate flights from Oct. 24, when he departed Palmdale for Tyndall, until his return Nov. 1.

Lt. Gen. C. S. Irvine boarded the plane at Kelly AFB for the last leg of the flight to Florida, and on arrival was interviewed for TV, during which he praised the airplane's performance.

While at Tyndall the F-106B provided demonstration hops for USAF officers from various bases and headquarters and for one (Continued on Page 2)



Capt. Frank Forsyth, left, who flew F-106B to Florida, and E. A. Fish, who crewed plane there, pose beside their ship.

Opening of Highway Link to Ease Traffic Congestion for Astro

A San Diego County road project which will have a direct bearing on traffic generated at Convair Astronautics is nearing completion and is now slated for opening within the next two weeks.

It is an extension of Friar's Road in Mission Valley to connect Murphy Canyon Road and Fairmount Ave. extension.

George Dale, chief of operations for the county road department, said this week that grading on the project is complete. Surfacing was slated to begin this week and should be completed well within two weeks, barring

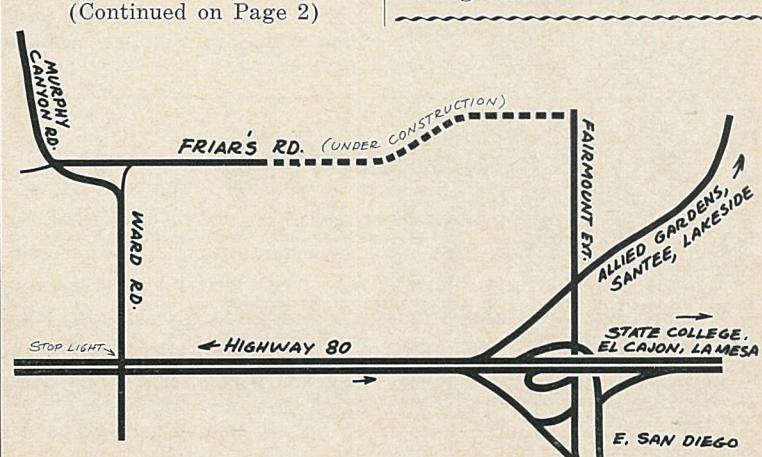
bad weather.

"A study is being made now as to the best method of funneling traffic onto the road," Dale said. "We will likely install a stop sign for either south or north-bound traffic on Ward Road, probably the latter."

Inspector Bill Thien of the San Diego Police Department advised Astronautics drivers of the advantages of using the new road. One will be the avoidance of a traffic signal light at the intersection of Highway 80 and Ward Road.

Drivers going to Allied Gardens, Santee or Lakeside via Mission Gorge Road will be able to avoid Highway 80 entirely by using the road. Those traveling to La Mesa, El Cajon or the College area may utilize it to funnel onto Highway 80 at the Fairmount Ave. overpass without going through the Ward Road traffic signal. East San Diego-bound drivers can use it to reach Fairmount Ave.

Cars from Astronautics may reach the road by traveling north from the plant on Kearny Villa Road, then south on Murphy Canyon. (Continued on Page 2)



Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

Two 880s Slated To Leave Factory During December

Four Convair 880 jet transports and a test article are rapidly taking shape on the assembly line at Convair SD Plant 1.

The nearly-complete number one plane is in final stages of assembly in Bldg. 3. Doors have been hung and the radome installed to put the finishing touches on the exterior silhouette. Final assembly is now shooting at the date of mid-December to hand the plane over to field operations, two weeks ahead of the original schedule, Harry Rote, final assembly superintendent, reported.

Close on its heels is plane No. 2 which went into final assembly the first of this week. It now stands with aft and forward fuse-

lage mated, trailing edges installed, vertical and horizontal stabilizers attached.

The second 880 has been tabbed to go to the ramp early in December for structural tests to prove out the 880 design before the first plane is ready for flight testing.

Tests of plane No. 2 and readying of plane No. 1 for flight tests will coincide early in 1959.

The complete control system of the second plane will be checked under strain. It will be sent into testing minus power plants and without the complete fuel and electrical systems which will be installed later when it is returned to the line for modification after testing.

Plane No. 3 will step into number two's vacated spot in major mate this week. Although there has been some delay in delivery of several assemblies, progress on the plane has not been held up, said J. F. Ames, Dept. 146 foreman.

Wings of the fourth plane were mated Oct. 30 and the underwing canoe and overwing barrel will be mated with the wing section next week.

The pressure cycle article (99-4) is on schedule with assembly to be completed in February. It is slated then to go to the ramp for pressure tests under water.

According to J. F. Good, Dept. 135 general foreman, four forward fuselage sections are now complete, with the fifth and sixth fuselages now in the works. The fifth and sixth pairs of wings are nearing completion in the bucks with the fifth set to go into preparation for Scotchweld bonding this week. Wings for the sixth plane will be out of the bucks about the middle of December.

Present time schedule calls for a lapse of 25 working days between planes No. 4 and 5 with the pace to be stepped up to 23 days between the fifth and sixth planes. As action speeds up on the assembly line next year, the gap will be closed to 17 days in between planes.

SD Club Schedules TV and Film Star

Danny Thomas, TV and film star, will appear this Friday (Nov. 14) at a special Convair San Diego Management Club meeting in Russ Auditorium.

Thirty musicians and dancers are also scheduled on the program which starts at 8 p.m. Material department is sponsoring the affair.

CRA Again Buys Ice Show House For Astro, SD

Convair Recreation Association again invites Convair SD and Astro people to be its guests at reduced prices to this winter's performance of the "Ice Capades."

CRA has bought out the entire house (3,000 seats in all) for the special Saturday matinee Dec. 13 at 2 p.m. in the San Diego Arena on Harbor Drive.

Tickets will go on sale next Monday (Nov. 17) at 9 a.m. at Convair SD employee services at Plants 1 and 2, Rose Canyon, and at Astronautics employee services.

A reduction of \$1 will be given on all tickets.

Reduced prices will range from 50 cents to \$2.50. All tickets will be sold on a first-come, first-served basis.

This year's Ice Capades, the 18th edition, will feature such numbers as "Carmen," "Salute to Gershwin," Walt Disney's "Fantasia," "Madame Butterfly," "Jet—300 Minutes from Hollywood to Broadway," and a novelty routine, "Schuhplattlers."



W. S. Rader, left, receives congratulations from Paul Osborn, Plant 1 factory manager.

Nader Third to Earn Indust. Certificate

W. S. Nader, Dept. 139 foreman at Convair SD, is the third to receive a certificate in industrial management from San Diego State College.

The other two certificates also went to Convair SD men, Monroe Jones and R. B. Miller, both of Dept. 8.

Nader completed the courses leading to the degree in four years of night school at State College. The program, set up in 1955, requires an above average performance to attain the necessary standing for the certificate.

More Moving in Prospect at SD For Engineers in Bldgs. 5 and 51

More moves are in the offing for engineering personnel into newly-remodeled areas in Bldgs. 51 and 5 at Convair SD.

Paul D. Ferrara, chief design engineer, and his staff will take up quarters this weekend in temporary offices in the first Bldg. 51 renovated area, west half of the third floor. Approximately 400 engineering design personnel are already settled in the section after their move last weekend.

This weekend (Nov. 14) will see the relocation of 300 electronics lab people to the east end of Bldg. 51 second floor. The move will clear the northwest area of the building for rework which gets under way next week.

In the Bldg. 5 reshuffling, the electronics work shop with about 90 persons has been temporarily located on the northwest mezzanine of Bldg. 1.

The east half of the second floor, which is due for completion the last of November, will be occupied the first week in December. The corresponding area on the third floor will be ready for occupancy the following weekend.

Installation of permanent air handling equipment is now under way in the new zones in Bldg. 5. Work is being expedited to provide both heat and air conditioning as soon as possible so that personnel now in the areas may have more comfortable working conditions in the near future.

Exterior work on the northeast end of Bldg. 5 will be completed at the same time as the interior zones.

Entrance and new stairway of Bldg. 5 from the Bldg. 19 overpass is scheduled to be finished and reopened for use by Nov. 24. The overpass entrance has been closed during construction of the new stairway from the second to the third floor. Access to the upper floors from the overpass is through the door at the foot of the south overpass stairs.

Other moves coming up will

see 160 people of ground support moving next week from present locations in Bldg. 1 and Bldg. 5 to the mezzanine of Bldg. 4 when Astronautics occupants go to the ground floor.

The southwest mezzanine of Bldg. 1 will be occupied the last of November by 100 of specifications, material control, and Model 7 general drafting assist groups.

Material shortages have delayed the remodeling work now in progress on the fourth floor of Bldg. 19. It is now slated to be completed sometime this month.

Equipment Systems Conference Slated For SD Nov. 19-21

Convair SD and Astronautics men will play important roles in the coming Equipment Systems Conference to be held in San Diego Nov. 19-21.

Charles L. Terrel of SD engineering administrative staff is co-chairman of the event at which the latest mechanized office methods, systems, and procedures will be demonstrated.

Other Convair SD men participating in panel discussions will be T. J. Moffett, management improvement programs and data processing; Dr. Robert Penn, senior research engineer; and J. T. Berthelet, systems and procedures analyst.

Representing Astronautics will be I. B. Jenkins, manufacturing control support, and M. M. Mrvichin, systems and procedures.

Main speaker at the Nov. 19 banquet will be Dr. H. R. J. Grosch of IBM, talking on "Management Techniques of the Future."

The conference, first of its kind to be organized by industry, education, and government agencies, will draw an attendance of over 3,000 invited individuals from city, county, and national organizations.

Other moves coming up will

F-106B Big Hit At USAF Meet

(Continued from Page 1)

newspaperman, Vern Haugland of AP. The officers included Gen. Earle Partridge, NORAD commander; Lt. Gen. Roy H. Lynn, vice commander of ADC; Maj. Gen. Howell Estes of Hq. USAF; Maj. Gen. R. W. Puryear of ADC; Maj. Gen. Ben Webster of Hq. USAF; Col. Fred Hook of Suffolk AFB; Col. Ben S. Preston of Hq. USAF; Col. Roy Cavinness of Hq. USAF; Col. John T. Shields of ADC, Alaska; Col. William H. Butterfield of Hq. USAF; Col. John H. Bell of Richards-Gebaur (CADF); Col. Charles W. King, McChord AFB (WADF); Col. J. W. Little, USAFE; Col. Robin Old, Hq. USAF; Capt. A. G. Linpsantis, Hq. ADC.

On the return flight to Palmdale Edward A. Fish, field operations foreman at Palmdale, was in the back seat of the F-106B. He served as crew chief for the plane during its Florida stay and the aircraft performed admirably under his care and that of J. C. Morris of SD field service.

Both drew praise from Forsyth who reported: "They displayed great effort and know-how while crewing the plane and their attention to pre-flights, post-flights, servicing and minor repairs contributed greatly to the mission's success."

Palmdale personnel attending the meet also included W. H. Rumbaugh, chief of field operations; R. E. Myrann, chief pilot; H. B. Henderson, assistant chief pilot; pilot Hal Burt, G. L. Otis, A. G. Guy, H. W. Nelson, R. J. Collins; J. L. Carton, group engineer; H. A. Daniels, assistant group engineer.

F-102s 'Splash' Jet Drones

(Continued from Page 1)

running the affair," Les K. Murray, manager of Convair's Colorado Springs office, where Air Defense Command headquarters is located, said.

"It was by far the best weapons meet I've ever seen, and certainly the most realistic test."

Although the tiny jet drones made elusive targets (only 33 square feet of target surface) they couldn't escape the attacking F-102s and their Falcon missiles. Shortly after "scrambling," each team's interceptor director controller (operating by radar on the ground) vectored the flight toward the target until the ship's guidance systems were "locked" to the drone.

The fact that all F-102s operated without failures was a powerful tribute not only to the aircraft but also to the crew chiefs and maintenance men who kept them in condition. It was a remarkable achievement under close to "combat" conditions.

New Highway Link To Speed Traffic

(Continued from Page 1)

W. E. Bowman, Astro's chief of industrial security, offered the following suggestion to drivers faced with congestion in departing Astro property:

"Go east by the cafeteria to the CRA recreation area, then north for a short distance over an unpaved road and then directly west on a new road which will bring you onto the Highway 395-Clairemont Mesa Blvd. overpass. It is much faster than waiting to enter flowing traffic on Kearny Villa Road."

Other road projects in the Astronautics area include: Clairemont Mesa Blvd. widening to four lanes is continuing, completion set for the second quarter of 1959.

Around July, 1959, work on widening of Murphy Canyon Road will start. An interchange at Highway 80 and Ward Road is slated for the near future.



SNAPPY—Girl chauffeurs at Convair SD look the part in new light blue uniforms. Left to right, Ann Strazz, Frances Rance, Ada Grace, and Sylvia Wisniewski.

Two Bears Dare Hunter to Shoot

Two bears lumbered disdainfully past Jack Swank last month while he was on a hunting expedition in Idaho.

"They were a stone's throw away but I didn't exactly know what to do," Swank, Gun Club commissioner at Convair SD, explained. "I was going back in the woods to retrieve an elk I had shot the day before."

"I hadn't bothered to take my gun along," he admitted ruefully.

SPACE COUNCILMEN INSPECT ASTRO

Convair Astronautics last week played host to three members of the National Aeronautic and Space Council, James H. Doohittle, William A. M. Burden and Dr. Detlev W. Bronk. Hosts included J. R. Dempsey, vice president and Astro manager, and T. G. Lanphier Jr., vice president and assistant to the president.

New Group in Engineering at SD Will Do Research in Materials

Dr. W. H. Steurer, internationally-known expert on materials, has joined Convair SD to fill the new post of chief of engineering materials, R. L. Bayless, chief engineer, announced recently.

Dr. Steurer will head the recently-established materials technical group of SD engineering, reporting to Garner Green, chief structures engineer.

The new activity consolidates under one function all research and engineering of materials for new commercial and military products.

Dr. W. H. Steurer directs. The group will study utilization of existing materials and be responsible for research in this field. It will act in an advisory capacity to manufacturing both at Convair and the subcontracting firms.

Joining Dr. Steurer to form the new group are C. W. Alesch, Seth Gunthorp, and Roy Miller, all formerly in structures. Other personnel will be added as the program is expanded, Bayless explained.

First projects facing the materials technical group include work on thermal protection sys-

SD Chauffeurs Get Uniforms

Girl chauffeurs piloting Convair SD's vehicles now are nattily garbed in the height of hostess fashion.

Smartly tailored uniforms, similar to those worn by airline stewardesses, have been procured for the four girls, all expert drivers, who provide taxi service for plant officials and Convair visitors.

The suits and perky hostess hats are of a becoming French blue shade with silver wings bearing Convair's emblem. Shoulder patches identify them with the plant's transportation operation.

Three of the girls, Ann Strazz, Ada Grace, and Frances Rance, have been driving cars and station wagons for Convair SD for the last three years or more, while Sylvia Wisniewski is the latest recruit.

250 Pints Goal For Next Blood Visit

Convair SD hopes to boost its credit at the blood bank with the next visit of the Red Cross Bloodmobile to Plant 1 on Nov. 20.

With just enough on hand to carry through one more month, the goal has been set at 250 pints.

Volunteers in Bldgs. 1, 2, 16, 32 and Depts. 188 and 192 are urged to sign up through department supervisors by this Friday (Nov. 14). The bloodmobile will be located in Bldg. 4 at Col. E-26 between 8:30 a.m. and 12:30 p.m.

Convairity

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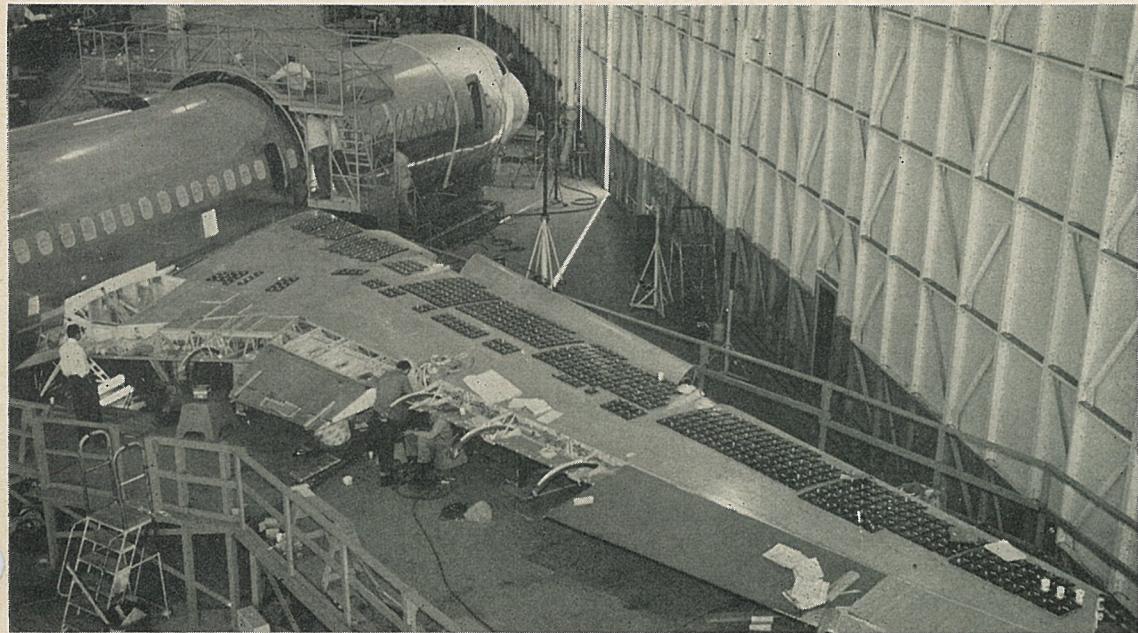
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grace Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weckersheimer, news editor.

FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr, Horace A. Baker Jr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337. Staff: Betty Lou Nash.



PROOF OF THE PUDDING—This airplane, 880 No. 2, will be used for structural testing which starts next month. Note pads on upper wing surface to which cables will be hooked to apply strain in static tests at SD ramp. Installation of some of major honeycomb paneled parts is in progress in this photo taken by SD lensman Bill Stillman, perched in overhead crane.

Honeycomb Panels Used Extensively In 880 Manufacture at San Diego

A development of Convair SD engineering test laboratories has come into its own in the manufacture of the Convair 880 jet transport.

Sandwich paneling—honeycomb cores and aluminum skins bonded together with advanced adhesive systems developed at Convair SD—is being used in more than 200 external parts of the 880. Over 220,000 square inches of the giant plane is composed of this material which provides the greatest strength with the least weight.

Convair first entered the research and development of honeycomb panels during World War II, although the sandwich panel theory had been under development by other companies for some time. It was first put into use by Convair on the Model 240 Convair-Liner in flooring panels and bulkheads. The same principle had been applied first to wood. Navigators' table tops for the B-24 were made of wood sandwich construction with balsa wood cores.

The honeycomb core itself is composed of aluminum foil layers, .001-in. thick, glued together

at alternate points. The glued layers are expanded by special machines to from 25 to 100 times in size, depending upon the foil thickness and size of cells desired. The sandwich is completed by bonding aluminum skin panels to both sides of the core.

Components were furnished by vendors according to Convair specifications, but not enough was known in its earliest use about the necessary qualifications to make the sandwich panels satisfactory on all counts—or peel resistant under all conditions.

During the late 1940's Convair SD began laboratory research into the problem of adhesives for development of a type which would provide high strength and toughness.

According to Seth Gunthorp, then a structures and materials lab supervisor who headed this research group in the early days of adhesive system development, "The problem was to develop a liquid adhesive which could be solidified and could not later be melted when subjected to high temperatures or speeds."

Test engineers who pioneered

in the adhesive research field at Convair SD included Gordon Picotte, Herb Barringer, Harold Hunt, Harold Pearson, all still engaged in the same type of work; Harry Ahlbeck, now of SD producibility engineering, and Verne Lintvedt, now of Astro engineering.

Valuable information also was obtained from Convair Fort Worth which had devoted a great deal of time and effort to the research of an adequate adhesive system.

San Diego Division's first structural use of honeycomb paneling for external aircraft parts was on the F-106.

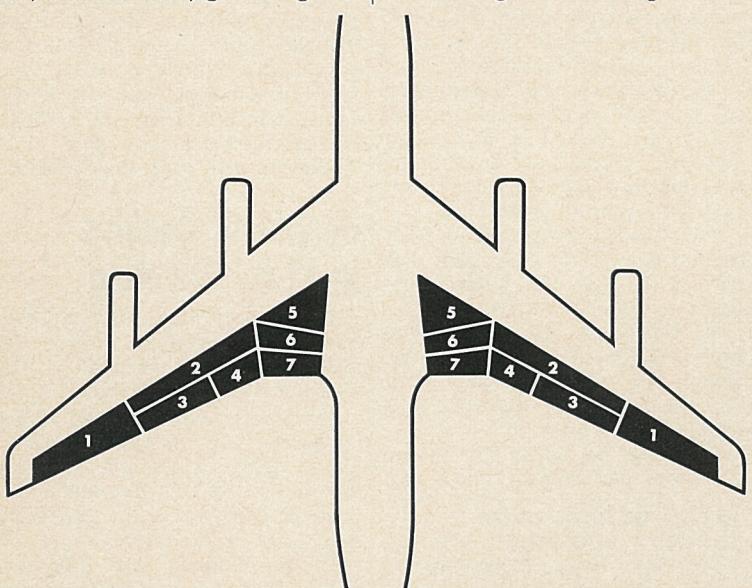
This development was accomplished by the addition of an epoxy resin to the standard tape adhesives. The peculiar properties of the epoxy resin allow it to flow up the sides of the core to bind it over a larger area.

A later development of adhesive, lighter in weight but equally as strong, is now in use on the 880 in such parts as trailing edges and control surfaces. The adhesive has been especially designed for use under the specific operating conditions of the Convair jet transport.

After Convair SD engineering test labs developed the materials and methods for the type of adhesives found necessary for peel resistance and durability, teams of company experts monitored the manufacture of honeycomb components for the 880 not only at Convair itself but at its subcontracting firms.

The adhesive now in use, made according to specifications developed at Convair SD, is as strong as the core in resistance to peel. The strength of the present adhesive system is so great, explained Gunthorp, that parts can not be taken apart without actually destroying them.

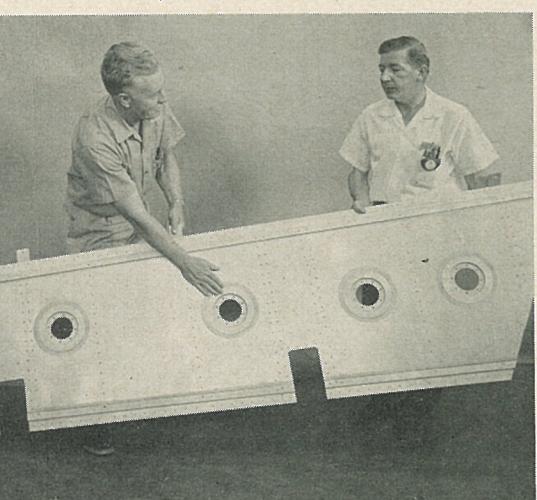
A ship's set of each honeycombed part of the 880 undergoes extensive testing in structures and materials laboratory to establish that its maximum strength is well beyond that necessary under any possible operating condition of the plane.



Major assemblies on the 880 wing surfaced with honeycomb are (1) trailing edge, (2) intermediate trailing edge and spoiler, (3) flap, (4) aileron, (5) aft wing, (6) inboard trailing edge, and (7) inboard flap.



HONEYCOMBING—At left above Richard Weed and Gary Stevenson of SD Dept. 31 are laying up honeycomb skin panel, while at right Harold Hunt and Gordon Picotte of SD Dept. 6 examine finished honeycomb aileron skin panel.



Pace Calls on Convair Customers While on Flying Visit to Europe

General Dynamics Corporation President Frank Pace Jr. has completed a two-week flying visit to Europe during which he conferred with scores of airline, government, military and industrial figures in eight cities.

Included were present as well as potential Convair customers.

Pace, whose trip involved a lot of flying aboard a Model 440 owned by the German airline Condor, said he was impressed by how widely and favorably known General Dynamics Corporation has become abroad.

Pace was accompanied by his assistant, Allen C. Siebens, Vernon Welsh, General Dynamics vice president-communication, and for much of the tour by George C. Prill, manager of Convair's European office. While in Germany he was briefed by Hans von Engel, Convair's German agent. Also during the trip he had meetings with R. M. MacIver of SD military sales and H. B. Henderson of Palmdale as well as Pete Leonard and Norman Schaeffer of Fort Worth nuclear operations.

In Geneva Pace attended the Second International Conference on Peaceful Uses of Atomic Energy where General Atomic and Electric Boat Divisions were participating in the U. S. technical exhibit. In Bonn he inspected fa-

cilities of Liquid Carbonic Division.

Among those with whom Pace conferred abroad were: Ernst Schmidheiny, chairman of Swissair; Gen. L. A. Aler, president of KLM; E. O. Soravuo, board member of Karhumaki of Finland; Gerhard Holtje, technical vice president of Lufthansa; Gen. Al Gruenthal, chief of the American Red Cross; Dr. Josef Rust, state secretary, German Defense Ministry; Gilbert Perier, president of Sabena; Ake Rusck, president of SAS; Gen. Lauris Norstad, Supreme Commander of Allied Powers in Europe.



AT COPENHAGEN—Frank Pace says farewell to George Prill, manager of Convair European office, at conclusion of two-week business tour.



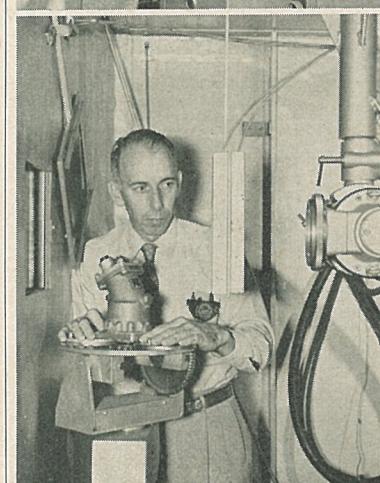
AT COLOGNE—With Condor Convair-Liner in background, Frank Pace poses with Pat MacIver, left, SD military sales, and H. B. "Buzz" Henderson, assistant chief pilot at Palmdale.

Incoming Components Will Get Fluoroscope Treatment at SD

Aircraft electronic and hydraulic components, built by vendors

before the equipment will operate.

Atkinson said that power sources are available to make either electronic or hydraulic components operate and that compressed air bottles can be used to test operate pneumatic units.



INSIDE PEEK—As a doctor uses fluoroscope in internal medicine, SD will use one to examine inside of components. Above, A. G. Blakey peers into "TV" screen. Below, C. W. Owen adjusts part on turntable.

"This will permit us to not only insure against faulty components getting by, but will give us a faster and better 'diagnosis' in case of malfunctioning," C. W. Owen, Dept. 188, currently the only one qualified to operate the equipment, said.

A convenient feature of the rig is the turntable to which the part under scrutiny is attached. The operator can rotate the table and tip it to any position. Also, there is an "image intensifier," (like a magnifying glass) which can highlight any particular inside part.

Lead-glass windows and lead shielding protect the operator from radiation. Also, as a special precaution, the same key that locks the door of the fluoroscope room is used to unlock the controls. The door must be closed



JUST SHOPPING—Although Virginia Carl and Carol Lovinsky of Astro quality control would never use face shields they are trying, a "fitting" seemed in order. In front are sampling of items available at safety crib, located at Column H-1, Bldg. 5. Safety shoes, prescription safety glasses, plus all safety equipment is available there. Payroll deduction plan is available on personal items.

Astro Forms New Keg Loop

Establishment of a new Convair Astronautics key league was announced this week.

The new loop, which rolls at 6:30 on Fridays, is for residents of the eastern fringe areas of San Diego (El Cajon, Lakeside, etc.). Action is at El Cajon Bowl. Officers are Charles Kushner, president; Garl Jones, vice president; Charles McGinnis, secretary; and William Walcott, treasurer.

Ed Frankowski paces the male bowlers with a 283 game, while Dave Mills holds high series with a 707. Ruth Lejman rolled a 255, high for the fems for a single game, and Barbara Mahaffey turned in a healthy 656 series. All are members of Thursday night leagues except Ruth Mahaffey who rolls on Tuesday nights.

Astro Radio Club Meetings Scheduled

Astronautics Radio Club members will gather at 7 p.m. tomorrow (Nov. 13) at the cafeteria for a regular business meeting. Second shifters will meet at 1:15 a.m. the following day at Col. K-5, Bldg. 5.

In addition to regular club business, discussions are continuing on installation of club equipment in the new "ham" section of the CRA buildings. These buildings are being refurbished now on weekends in the recreation area adjacent to the Astro plant.

Log Book Entries

Promotions

ASTRONAUTICS

Promotions and transfers to supervision effective Oct. 27:

Dept. 130, Industrial Relations: To guard captain, H. M. Graham, W. F. Maguire, V. Pry. To product support training asst. supervisor, B. D. McClure. To executive & supervisory development supervisor, D. D. White.

Dept. 181, Methods & Layout: To factory methods asst. supervisor, R. A. Given.

Dept. 400, Tool Engineering Administration: To tooling supervisor, G. R. Broslaski (effective 9-29-58).

Dept. 454, Plaster, Plastic, Foundry: To asst. foreman, Group V, J. E. Wagner.

Dept. 537-5, Engineering—Propulsion Design: To design group engineer, G. W. O'Hare.

Dept. 578, Test Engineering: To flight test group engineer, J. D. Anderson, H. P. Eldridge. To asst. flight test group engineer, T. M. Wooster.

Dept. 773, Missile Checkup & Acceptance: To asst. general foreman, C. W. Graser.

Service Emblems

ASTRONAUTICS

The following service emblems are due during the period Nov. 1 through Nov. 15:

Fifteen-year: Dept. 220, P. V. Cook; Dept. 758, V. A. Bentley; Dept. 771, B. L. Ennis.

Ten-year: Dept. 130, G. N. McMillan; Dept. 182, D. L. Eissenmacher; Dept. 521, C. W. Younger; Dept. 758, J. W. Norris; Dept. 772, Ruth M. Young.

Births

ASTRONAUTICS

INFELD—Son, Craig Allan, 7 lbs., 3 oz., born Aug. 23 to Mr. and Mrs. Allan G. Infeld, Dept. 772.

Men's Choral Group Organizes at Astro

A men's choral group at Convair Astronautics has completed election of a slate of officers and established regular rehearsal sessions at 8 p.m. each Monday night in the Astro cafeteria.

A. D. Phillips is the president; Avery Merrow, vice president; Walt Beyer, treasurer; Stanley Medford, secretary; and Danny Milson, librarian. Bob Craig directs the chorus with Phil Ayers as assistant director.

All male singers are invited to take part in the CRA-sponsored group. Especially needed at this time are tenors and baritones, Phillips said.

Late Rally Wins For Ball Club

A pair of whirlwind finishes have established the Convair Astronautics winter baseball club as a team to beat in the Industrial League.

In beating Escondido the Astro nine went into the 11th frame tied up. With two out and one man on base, Catcher Richard Wenger tripled to give the CRA club a 5-4 win.

Against Naval Air Station Astro trailed 3-2 into the last of the ninth. Again with two away, Don Easler reached first on an error, Manager Duke Powelek doubled and Bob Buso hit a long single to score the winning runs.

The lone Astro loss, in early play was to Oceanside, one of the strongest teams in this area.

Astro played Logan Heights Merchants last Sunday. They meet Volz Drugs on Nov. 16 and Rohr on Nov. 23. Both latter games will be played at Linda Vista.

'Hairy Hound' Event Occupies Car Fans

Three events in recent weeks have drawn the interest of members of the Convair Astronautics Sports Car Club.

Following the group's Oct. 23 meeting, a "hairy hound" fun event found Jack Stephens and his wife, Jean, and Roger Jett and his wife, Pat, taking first and second places. Stephens and Jett are Astro photographers.

On Oct. 26 Astro joined with Convair Antelope Valley Sports Car Club in a time trials event at Willow Springs. Jo Ann Stephens of Astro won the women's event. Curtis Claybrook finished second in his class.

Bill Rector and George Blondin won first in their class and second overall during a European-type "Rallye Around the Mountain" staged Nov. 2 by the La Jolla Sports Car Club.

Handicap Badminton Tourney Scheduled

Two Thanksgiving turkeys will be presented to Convair Astronautics badminton players during a special handicap tournament beginning at 1 p.m. Nov. 23 in the Federal Building, Balboa Park.

All Astro employees and members and their families are eligible for the tournament which will be set up to insure an equal chance for all players.

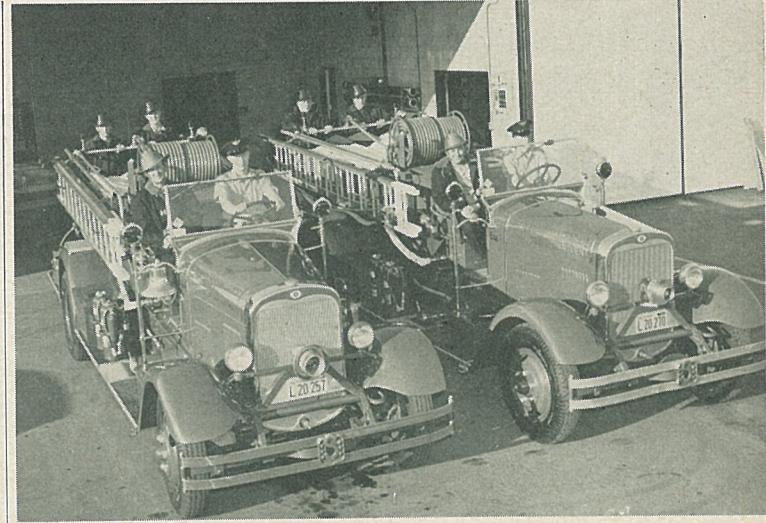
Entries must be made by contacting Bunny, ext. 1111, by Nov. 21.

Regular badminton play is held at 7:30 p.m. each Tuesday at the Federal Building, Balboa Park.

Indian Reservation Is Rockhound Target

Forty persons took part in the initial field trip conducted by Rockhounds at Convair Astronautics Oct. 26. They traveled to a local Indian reservation in 13 cars.

Excellent results were reported by the collectors. Another field trip is being planned for the near future.



SPRY & SPARKLING—Despite nearing 23rd birthday, fire engines above are in tip-top shape for duty at Astro plant. Bought for San Diego World Fair, trucks were acquired by Astro and restored.

Recalled From Retirement, Astro 'Pumpers' Get New Lease on Life

A matched pair of "work horses," in their prime when San Diego staged its World Fair over two decades ago, are still going strong among the modernistic surroundings that are Convair Astronautics.

Because each has been so completely restored, only a trained observer would note they are approaching their 23rd birthday!

They are identical Seagrave fire engines, called pumpers.

Each dates back to 1936 when San Diego ordered them for use during the Fair. They later joined San Diego fire fighting forces and served over 20 years until their retirement in early 1957.

Astro obtained them in a round-about way.

Plans for security of the new Astro plant indicated the need for a special type of fire fighting equipment. Most buildings were to be sprinkler-equipped. There were to be no aircraft operations which necessitate large foam-carrying trucks. Aisles in the factory building would not accommodate larger trucks. The 400,000-gallon reflection pool provided adequate supplies of water, but it had to be pumped under pressure to the upper floors of the office buildings. Too, the cost of equipment made to order for these tasks was high.

Security Chief W. E. Bowman and other planners decided that perhaps an older truck that could be restored would result in a smaller capital investment.

Joe Mernik, now Astro chief of guards, located the trucks. They were parked in San Diego awaiting transportation to Los Angeles and an equipment firm that had bought them.

"We bought the trucks and had them restored for less than one-half of the cost of a single truck made to order," Bowman said.

So thorough was the restoration that San Diego fire fighters always do a double-take when told the trucks are the same ones they once operated.

Each rig can pump 600 gallons of water per minute. Each car-

ASTRO BRIDGE CLUB ELECTS OFFICERS

Election of a committee to direct activities of the Convair Astronautics Bridge Club was completed Oct. 23 at a regular play session. Elected were Bob Rustad, Bill Hatherly, Jud Kenney and Joan Sherley.

ARCHERS OF ASTRO AND SD TO MEET

Archers from Convair Astronautics will gather with their counterparts from San Diego Division Nov. 20 in a joint meeting slated for the San Diego CRA Clubhouse.

Turkey Tourney Set for Golfers

Convair Golf Club members will compete in four flights for turkeys in the annual Thanksgiving sweepstakes Nov. 22 and 23 at the Flying Hills course.

Turkeys will be awarded to low gross and low net winners in each of the flights. Registrations close at noon Nov. 19. Call Alma, ext. 218, Plant 2, for starting times.

Tickets

The following tickets are available at Astro employee services, Bldg. 8:

Nov. 23 football game between University of San Diego and Idaho State College, savings of 75 cents and \$1 per ticket;

Nov. 17 roller skate night at Skateland, no charge;

Marineland of the Pacific, Palos Verdes, 50 cents and 40 cents off;

Disneyland, Anaheim, membership cards in Magic Kingdom Club allowing discount on admission and rides.

ASTRO ASTRONOMERS TO ORGANIZE CLUB

An organizational meeting has been called for all Astro astronomy fans tomorrow (Nov. 13) at 7:30 p.m. in the executive dining room.

CRA Sports & Recreation Convairity

Astro Riding Club to Dedicate New Arena at Sunday Horse Show

An all-day horse show featuring entries from throughout the Western states is being planned by the Convair Astronautics Riding Club for Sunday (Nov. 16) to dedicate its new riding arena.

Divers Explore Island Waters

The Astro Divers of Convair Astronautics roamed the waters around the Todos Santos Islands off Ensenada Nov. 2 in an all-day event from the decks of a chartered 48-foot fishing boat.

Spearfishing was the morning activity with Jorge Zorrilla bagging the three largest fish, closely followed in order by Wesley Kauder, Larry Beaver and Bob Nicholas.

Following lunch aboard the boat, the afternoon was spent in various pursuits. Bob Nicholas brought up a 10-pound lobster, largest bagged by the group in some time, while Alan Jones netted a nine-pounder. Herman Richart completed his lung checkouts, while other members of the 18-man diving team brought up many shells, abalone and scallops.

The arena, located in the recreation area adjacent to the Astro plant, will be "jumping" from 9 a.m. until late afternoon as 16 classes are presented with riders ranging from 6 to 60 years of age.

There will be English, Western, jumpers, three-gaited, canter, trail, quarter and Arabian events as well as gymkhana. Trophies and ribbons will be presented to fifth place in each event. The unusual trophies will feature an Atlas missile statue.

There will be no charge for spectators and parking is free. Entry fees will be charged contestants.

One of the features of the show will be a grand entry and presentation of the colors, scheduled for shortly after lunch.

The Astro group plans to have some sort of food service available for those who would like to spend the day.

The new riding ring, one of the largest structures slated for the recreation area, is 125 feet wide and 150 feet long. It was erected by volunteers, mostly from the Riding Club. Finishing touches were applied over the past weekend.

CRA Calendar

(Convair Recreation Association currently sponsors more than 30 activities, while others are forming. For information on any activity call ext. 1111.)

ARCHERY—Joint meeting with San Diego archers Nov. 20, CRA Clubhouse, Plant 1.

ASTRO DIVERS—Scavenger dive Nov. 23 at La Jolla. Regular meeting at 7:30 p.m. Nov. 25, executive dining room.

BRIDGE CLUB—Only one meeting in November, 7:30 p.m. Nov. 13 at Barcelona Bridge Club, 4th and Juniper.

CHESS CLUB—Organizational meeting at 7:30 p.m. Nov. 14 at Astro cafeteria.

COIN CLUB—Meeting at 7:30 p.m. Nov. 26 at Astro cafeteria.

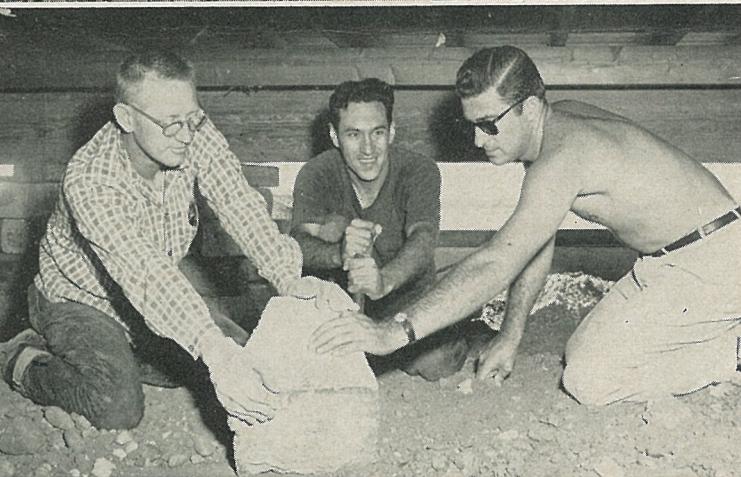
RIDING CLUB—Dedication horse show at 9 a.m. Nov. 16, CRA riding ring in recreation area.

WOMEN'S ACTIVITIES—Tickets now on sale for Dec. 4 show featuring hypnotist and memory expert.

Coin Club Planning Turkey Door Prize

Convair Astronautics Coin Club will present a turkey as a door prize at its Nov. 26 meeting set for 7:30 p.m. at the Astro cafeteria.

The coin collectors have a small but active following. Several members took part in the recent "Coinarama" event in San Diego with J. J. Garside taking a third place award for a display of wooden nickels in the unclassified section.



WEEKEND LABORS—Work parties in new CRA recreation area at Astro have accomplished much over past weekends. Large group is removing frames from forms for one of two meeting buildings now being renovated. Under floor of building are Lou Safran, C. D. Stephens and W. G. Bleeker. In addition to work on buildings, barbecue pits, play areas and picnic shelters are being started by various groups. Photos by Larry Tuttle, Astroloens.

Half of CRA Work Areas Assigned to Sponsors

Slightly less than half of the 35 surveyed sections in the new Astronautics recreation area have been assigned to departments and functions for development. The remainder are available for the asking.

CRA has had the 26-acre tract adjacent to the new Astro plant blocked off into sections or parcels. Large and small groups are being asked to assume responsibility for future development of these areas, according to a master construction schedule.

Volunteers would provide the labor while CRA would make available materials and tools.

For instance, two big picnic shelters, each suitable for departmental or large groups, are now under construction by volunteers. One is being erected by tooling departments with Marty Stutz as coordinator. The other has been assigned to Dept. 772 under W. B. Barth. These projects represent a portion of the overall development of that particular section in which each is located. Already assigned are:

A large section being handled by Dept. 556-1 with Ernie Wade as coordinator.

Another section undertaken by industrial relations under Joe

Mernik;

A third section to Dept. 756 under P. R. Lewellan;

One section to manufacturing control (Dept. 220) with Cliff Hewitt as coordinator.

Quality control functions (Depts. 270-280-290) under E. J. Bourgeois are taking one section;

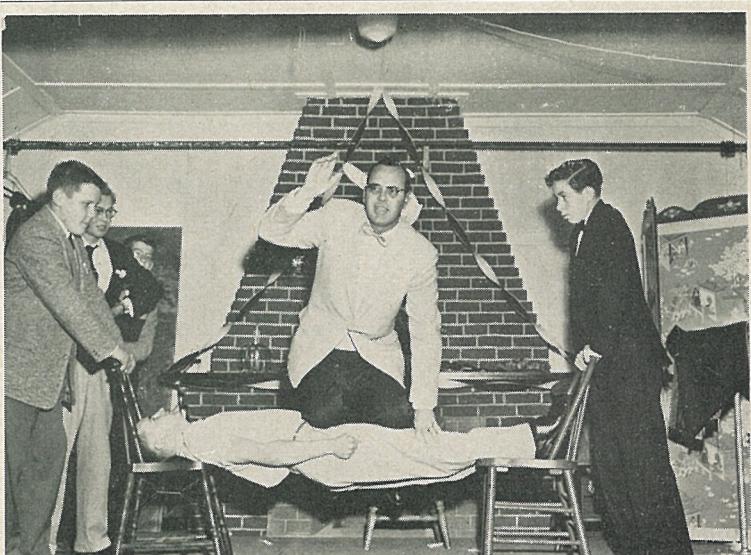
And Dept. 771 personnel under Bill Martin will handle one area as well as coordinate all work on the gymnasium.

There are various projects awaiting assignment. Several special play areas for children will be developed as well as shuffleboard, horseshoe and volleyball areas. Smaller groups may want to take one or more of these assignments.

CRA is continuing to keep books on hours worked by each individual in the area. When a person completes 20 hours he is entitled to an "Effie," a CRA award which bears the person's name, an inscription, an ash tray and a mounted missile.

Individuals wishing to work are invited to join work parties formed in the area mornings and afternoons over every weekend.

Further information about the project is available by contacting Ray Mendoza at ext. 1111.



DON'T TRY IT!—This trick isn't recommended for novices, but R. N. Mikesell, hypnotist, makes it look easy. Mikesell will head a program sponsored by CRA Women's Council at Astro on Dec. 4. Tickets are now available through employee services, Bldg. 8.



CHAMPIONS ALL—This was field for final round of first Convair Astronautics plant championship golf tournament which wound up last month. Winners of 11 flights are standing, runners-up are in front. Standing at left is Jack Maughmer, championship flight winner and plant champion.



SHARP ON GREENS—Jack Maughmer, new Astro golf champ, was wizard with putter when he defeated Dick Marvin 5 and 4. Jack had three birds going out at Flying Hills and was never headed.

Chess Club Future Rests Upon Turnout

Activation of a Convair Astronautics Chess Club will depend upon turnout at a Nov. 14 meeting set for 7:30 p.m. at the cafeteria, according to Art Munson, CRA president.

Munson, former commissioner of the San Diego Division chess group, said some interest had been shown in setting up a regular club at Astro. He said that further plans along this line will be made if sufficient participation at the initial meeting is noted.

Jack Maughmer '58 Golf Champ After 5 and 4 Finals Victory

Jack Maughmer, a steady shot maker with a flair for the greens, is new plant golf champion at Convair Astronautics following three weekends of play over two courses.

Maughmer birdied three holes on the front nine at Flying Hills, then guarded his lead consistently to down Dick Marvin, 5 and 4, for the crown. Maughmer finished his final round with a two-over-par 74. Marvin carded a 78.

Jack Albright won the first flight, beating Bill Houchin, one-up. Bob Chilton won a similar victory over Harry Richards in the second, while Hank Johnson bested Jim Tierney, four and two,

in the third.

Fourth flight victor was Jud Kenney with a two-up win over Wayne Boring. George Burst and Ray Berner went 19 holes before the former copped a one-up victory in the fifth. Hartland Moran defeated Russ Gaughen, two-up; Ron Bruck bested Lyle Jenkins, one-up; Andy Corrao topped Mike Bowler, three and two; Gary Stachwick beat Lou Marine, three and two; and John Helgeson defeated Harold Ferguson, three and two, in other flights.

The 22 finalists from the field of 88 starters received trophies on the 18th green from Art King, CRA golf commissioner.

Two Hours of Entertainment in Store For Guests at Women's Council Show Dec. 4

Two hours of unusual family entertainment are on tap for those attending a special Astronautics CRA Women's Council program planned for 7:30 p.m. Dec. 4 at Pacific Beach junior high school.

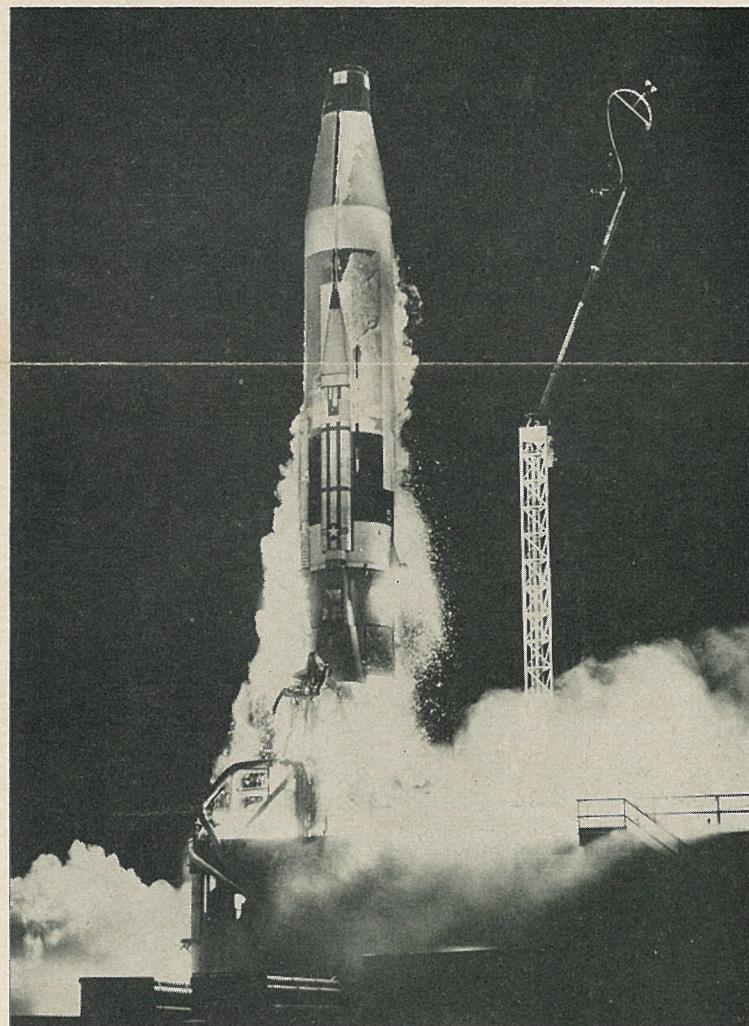
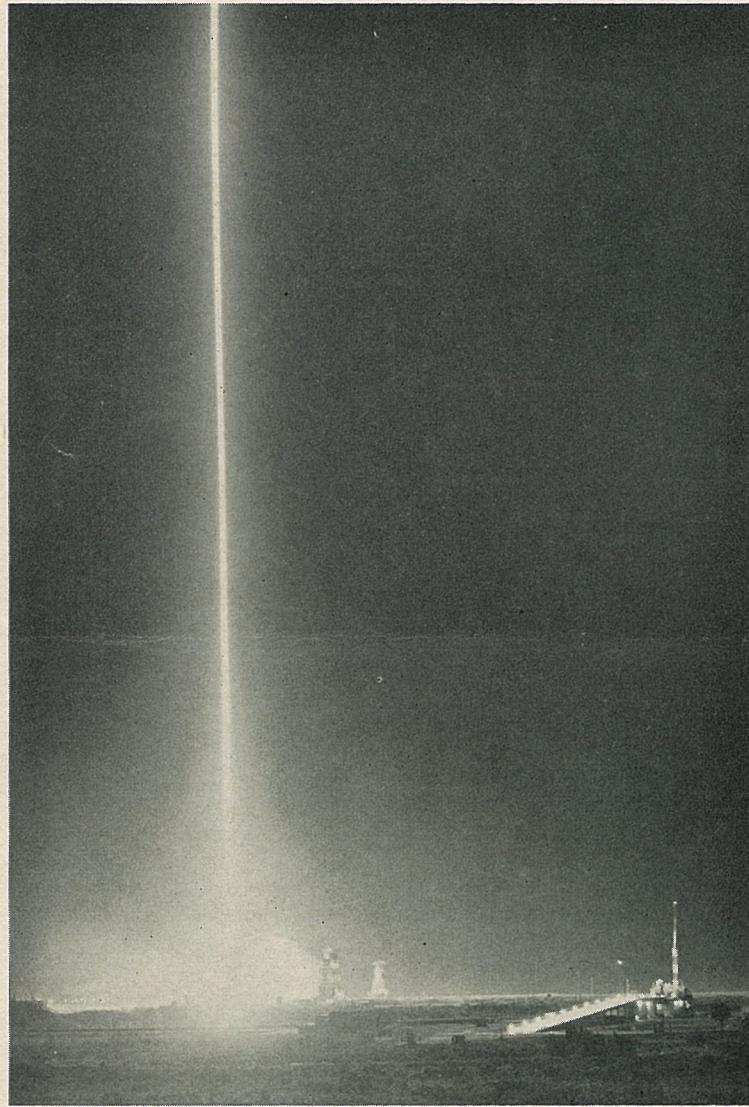
Richard N. Mikesell, a hypnotist who has appeared twice locally before Convair groups, will headline the program. Also appearing will be Dan Robinson, a memory expert.

Mikesell indicated this week that during this program he will attempt to duplicate for the first time in the United States Indian

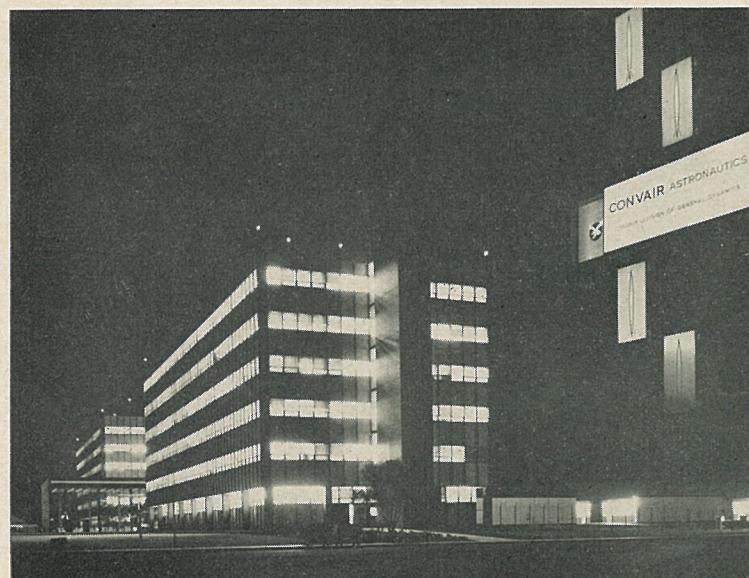
fakir tricks. He will use volunteers from the audience to perform under hypnotic trances.

A leading teacher of medical and dental uses of hypnosis in treatments, Mikesell also instructs professionally in self-hypnosis. He is credited with teaching a housewife to speak Spanish in three days under hypnosis.

Tickets for the affair sell for 25 cents each. They are available at employee services, Bldg. 8, and at Column A-9, Bldg. 4, Plant 1, San Diego Division. Door prizes will be presented.



NIGHT FLIGHT—Top photo is remarkable time exposure taken by amateur. Streak which looks like searchlight beam is actually light path left by Atlas missile on negative as it soared upward. Lower photo is closeup of night firing at Cape Canaveral, Florida. Note ice and frost formed as result of liquid oxygen.



NIGHT SCENE—Astronautics Division plant burns midnight oil in this recent photo. Sign at right is almost quarter of mile from building but Astro photographer Henry Kierstead managed to combine pictures by some photographic sleight of hand.



MOUNTAIN RENDEZVOUS—Carswell AFB's No. 661 B-58 keeps rendezvous with Convair-operated C-46 and a Carswell C-47 with Sandia Mountain range in background at Kirtland AFB in New Mexico.

Fuel 'Pipelines' For Atlas Missile Carried in Suitcase 40 Feet Long

You may not be able to judge a book by its cover, but you can sure form some definite opinions on missile parts by their containers.

That's the case at Convair Astronautics where considerable detailed planning goes into transporting intricate Atlas missile components and parts from manufacturer to final assembly.

Of course, items to be used on the Atlas arrive from vendors and suppliers in many forms. Some are encased in cardboard containers. Others are packaged in wooden, metal or fiber glass devices. Some containers reflect the delicate nature and high value of items they contain.

For instance, long Stillwell "pipelines" that feed fuel to

the missile engines (and look to the layman like plumbing fixtures) are packaged in what appears to be a king-sized suitcase, complete with handles and snaps. These all-metal containers are almost 40 feet long but can be carried by two men.

Then there is another container that is hand-carried from its origin in New York state. It houses a sensitive part of the Atlas guidance system that comes packaged like a priceless jewel.

Not all containers fall into the "suitcase" category. There is a mobile rig perfected for the Air Force to haul rocket engines. It consists of four wheels supporting a frame. The engines, mounted on another frame equipped with rollers, slide inside.

NO. 661 NOW FLYING AF POD DROP TESTS

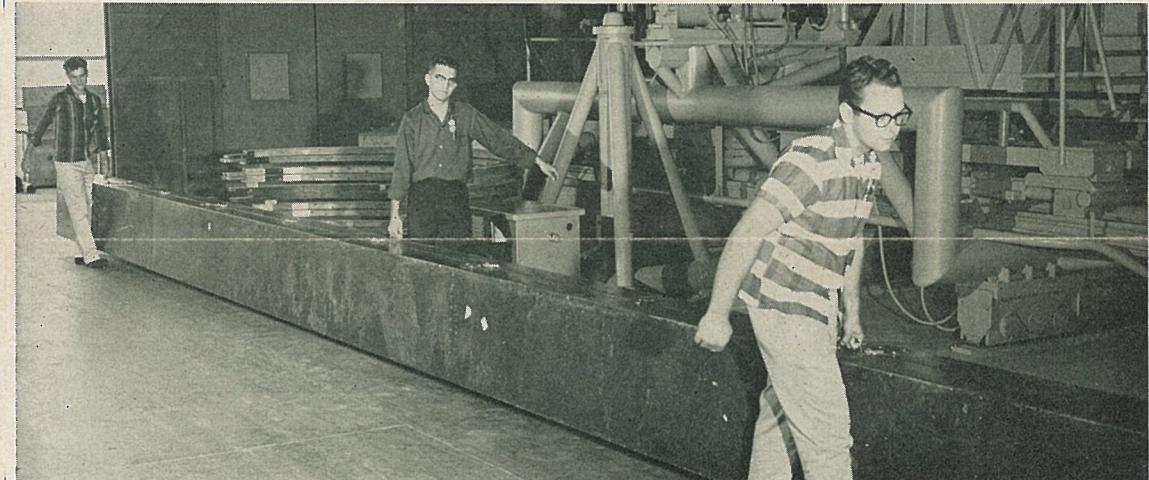
Carswell AFB's No. 661 B-58 is now flying Air Force pod drop tests at Holloman AFB range in New Mexico.

The B-58 on a recent successful drop of the detachable pod was piloted by an Air Force crew from Carswell and landed at Kirtland AFB at the foot of the Sandia Mountains in New Mexico.

While at Kirtland, a Convair-operated C-46 and a Carswell C-47 flew in additional equipment required for the test.

Crew for the B-58 was made up of Lt. Col. George A. Gradel, navigator; Maj. Leon W. Amos, pilot; and T/Sgt. Bobby D. Ryan, flight engineer.

This was the first time that an Air Force crew had brought a B-58 into Kirtland, J. L. Freeman, industrial relations, said.



CARRY YOUR BAG?—No suitcase for tall people this, but a re-useable container for transporting certain Atlas missile parts. "Porters" are Ken Kennedy, Alan DeMoude and Roger Bell, all of Astro Dept. 215. Container is light weight despite its almost 40-foot length.

Astro Con-Trib Membership Soars, Nears FW's Mark of 94½ Per Cent

Membership in the Convair Astronautics Employees' Con-Trib-Club reached 93.5 per cent last week with indications that it will climb still higher before final tabulations are made.

On the strength of this remarkable showing, Con-Trib's Employees' Committee has voted to increase a pledge on behalf of members to the current United Fund drive by \$35,000, bringing the total pledge to \$125,000.

Thus, combined pledges of Astro and San Diego Divisions now stand at \$300,000, the largest amount ever given by employees of a single firm to a United Fund drive in San Diego.

Campaign workers at Astro are continuing a tireless drive to reach every employee on the payroll in the San Diego area.

(Three major off-site operations, the Air Force Missile Test Center in Florida and the Missile Static Test Site and Vandenberg AFB in California, are excluded. Each will conduct its own drive).

Late last week over 160 solicitation cards were still out. In addition, some 135 were classified as "undetermined." That is, employees on leave of absence, terminations since the drive started, etc. Exclusions or inclusions of these cards could alter the overall totals, said Dick Mitchell, drive chairman.

Campaign helpers have done a remarkable job of contacting the majority of employees despite extended trips, vacations and off-

site assignments," Mitchell said.

Last week three major departments, 110, 130 and 150, plus Dept. 100 (manager's staff), reported 100 per cent participation.

Five departments fell in the 95 to 100 per cent bracket. With percentage totals in parentheses, they are: Dept. 180 (96.3); 220 (96.8); 700 (95.7); 510 (96.2); and 620 (97.1). In the 90-95 per cent bracket were: 190 (93.7); 210 (94.4); 250 (90.9); 270 (92.3); 400 (92.6); 530 (92.6); 570 (94.3) and 590 (90.1).

Three other groups ranged between 80 and 90 per cent, with the lowest total reported for the campaign being 81.8 per cent.

Astro started the drive with only 74 per cent participation.

Final Convair Fort Worth Con-Trib-Club drive results show 94.5 per cent plantwide participation, with a total of \$360,190.25 pledged.

Chalking up 119 per cent of the \$260,704 quota, pledges this year soared \$49,486 past the target.

Con-Trib pledges topped last year's overall 91 per cent participation.

Final statistics show 14 departments as 100 per cent participants. These include Depts. 2, 5, 10, 12, 16, 18, 26, 33, 35, 41, 48, 52, 70 and 92.



"We've done very well with our fire and disaster drills but there STILL are a lot of employees who don't know how to protect themselves in a coffee break stampede."



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Convairiety

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Wednesday, November 26, 1958

SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

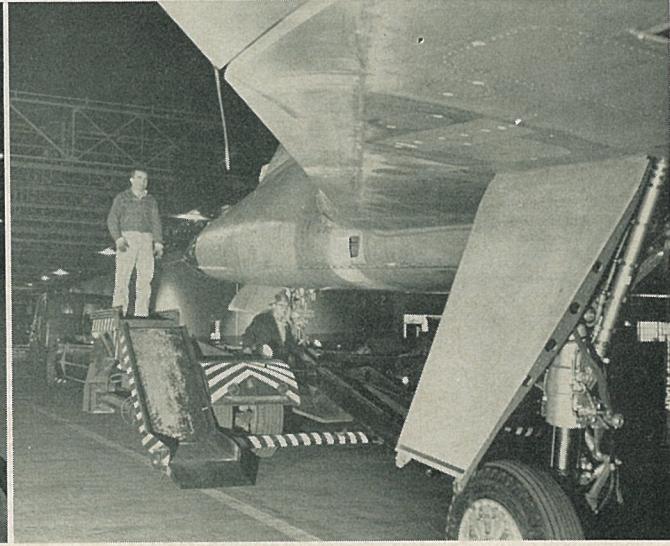
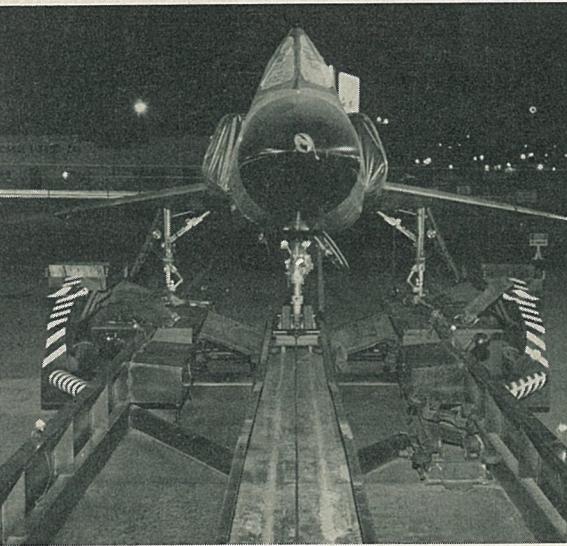
Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

DAINGERFIELD AND FORT WORTH, TEXAS



NIGHT JOURNEY—F-106 (left) leaves all-weather station at Plant 2, last stop before trip to Lindbergh Field and eventual fly-away. Center and right, plane is gently pulled aboard trailer. Shown are C. D. West, Dept. 21, and W. C. Smith,

Dept. 25. Plane and trailer are towed across overpass, through Marine Base and around Lindbergh Field to fly-away facility. SD lensman O. W. Rollins snapped night shots.

F-106 Mfg. at SD's Plant 2 To Accelerate

Manufacture of F-106s at Convair SD's Plant 2 is expected to accelerate gradually between now and late spring. By then the production rate will be about double that now in effect.

Involved in the acceleration will be a substantial build-up of the production force, F. H. McLaughlin, Plant 2 factory manager indicated.

Overall Plant 2 population now is a bit over 6,000.

Convair SD has been producing F-106s since the first airplane flew in December, 1956. Of the airplanes so far delivered, all are taking part in test programs of one kind or another. A majority of the ships are located at Convair facilities at Palmdale, Edwards AFB and Holloman AFB. (Engineering test flying centers at Edwards, while Holloman testing is concerned with armament.)

Majority of the F-106s produced so far have been F-106As, the single-place interceptor. A certain number, however, have been the B model, the two-place tandem version, the first of which was flown in April of this year. Currently, of the ships coming off the line, about one in four are Bs.

AV Personnel Shift To Other Facilities

Population at Convair Palmdale, which reached a high point of 2,500 in January, is currently about 1,500 and is expected to dip to around 1,000 by the first of the year, returning to the 1,500 figure in March as the facility keeps in step with F-106 production.

"Every possible effort is being made to assist those involved in the force reduction," E. S. "Butch" Ely, Palmdale employment supervisor, said this week. "We have managed to place many with other firms or other Convair facilities."

Actually, more than 200 formerly at Palmdale are now working for Convair elsewhere. Approximately 85 have joined Astronautics Division at Vandenberg AFB, more than 50 transferred to Astro at San Diego and a like number are now with SD Division at San Diego. More than 30 have transferred to Convair FW and a few to Pomona Division.

Employment interviewers not only from various Convair divisions but also from other companies have been called to Palmdale periodically, Ely said, with considerable success.



CONNECTED—Direct dialing between Astronautics and San Diego Division is in offing. B. K. (Shelli) Bockhorn, Astro chief operator (nights), points out number Astro people will use to reach SD. San Diego personnel, to reach Astro, will dial 84.

More to Move In Remodeling

The next two weeks will see approximately 600 engineering personnel relocated as the Bldgs. 5 and 51 remodeling program progresses at Convair SD.

About 100 people of specifications, material control and Model 7 general drafting assist groups are slated to move this weekend into the southwest mezzanine of Bldg. 1.

Moving into permanent new quarters in the northeast corner of Bldg. 5's second floor will be 200 of engineering library, vendor interview offices, commercial projects, office services and secretaries pool. Military relations, now located on the first floor of Bldg. 1, is also slated to occupy space in the new area which will (Continued on Page 2)

Ice Show Discount Tickets on Sale

Discount tickets are still available for Convair SD and Astro people planning to attend this year's special showing of "Ice Capades."

Saturday (Dec. 13) matinee of the ice extravaganza to be staged in the San Diego Ice Arena at 2 p.m. has been reserved for Convair people and their families.

A reduction of \$1 is given on any seat in the house through Convair Recreation Association arrangements. Reduced prices range from 50 cents to \$2.50.

Tickets are now on sale at Convair SD employee services at Plants 1 and 2, Rose Canyon, and Astronautics employee services, Bldg. 8 at the Kearny Mesa site.

Twelve Qualify For Annual SD Savings Award

Twelve flat-salaried men at San Diego Division are in the running for the 1958 President's Award, top honor paid for cost reduction activities during the year.

Up to the end of October, the 12 top candidates representing San Diego and its off-site bases led the field in qualifying for the annual CIP award. Each candidate has to his credit CIP dollar savings of well over the \$25,000 minimum necessary for eligibility, said E. E. Hartzler, cost reduction supervisor.

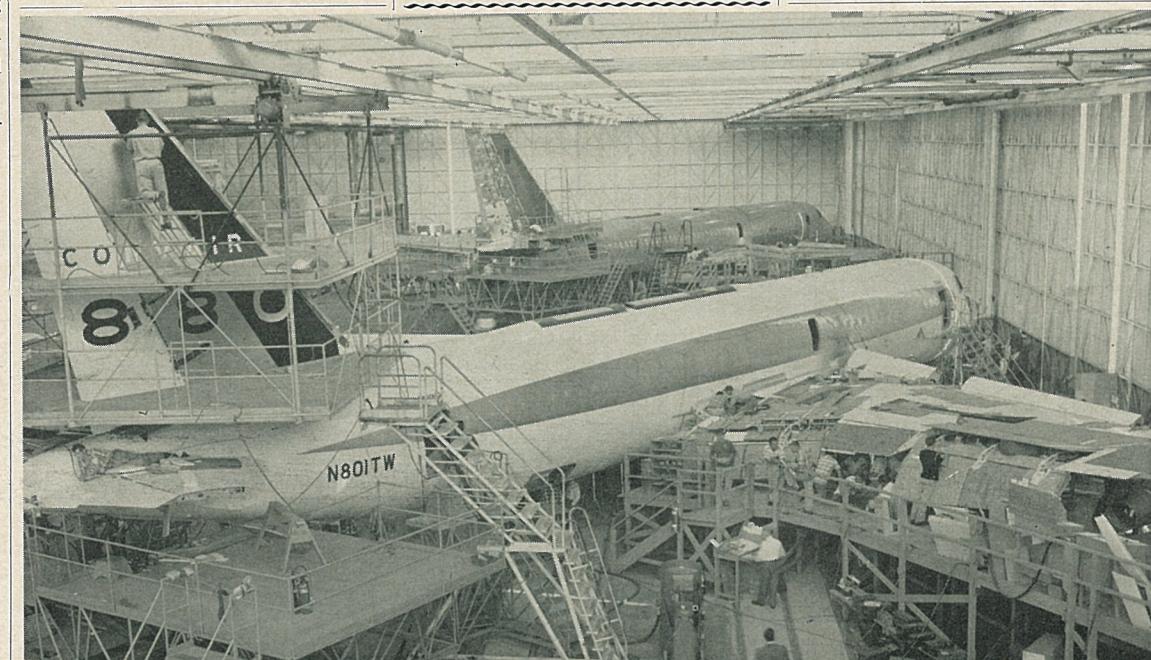
The award, presented each year since 1954 by Convair's president, is normally given at the February meeting of the Convair SD Management Club. Last year's award went to Francis Gagnon of Palmdale (Dept. 321).

Astronautics Division will make a similar President's Award on the basis of outstanding cost reduction efforts during the year. No candidates have as yet been nominated, pending revision of ground rules.

Winner receives an individual bronze plaque, and has his name engraved on a similar perpetual plaque in the division manager's office; a certificate facsimile; and a \$250 merchandise gift of his choice.

An improved method of evaluation will be installed this year, explained Hartzler, as a more fair means of choosing the winner. A point system, taking into consideration the amount of dol-

(Continued on Page 2)



NO. 1 AND NO. 2—Two 880s are now in Bldg. 3 at San Diego. In foreground is No. 1, scheduled for roll-out next month. In background is No. 2, slated for structural tests at ramp.

Con-Trib Membership Climbs at Both SD And Astro Divisions

With 100 cards still unreturned, Con-Trib-Club membership at Astronautics Division stood at 94 per cent this week. Meanwhile, early returns from the San Diego Division roundup campaign, pointed toward a 90 per cent membership.

Campaigners were hopeful at Astro that cards still outstanding, involving employees on leave of absence, off-site assignments, etc., would eventually lift the total to 95 per cent, either tying or topping the Fort Worth Division mark. Currently Astro has more than 9,000 members in the San Diego area.

With cards from off-site bases still to be tabulated at SD Division, campaigners counted approximately 1,500 new members, lifting the total to 21,200. New

Dates For Year-End Holidays Selected

Year-end holidays for San Diego and Astronautics Divisions will be celebrated Dec. 25 and 26 and Jan. 1 and 2 this season. R. H. Biron, vice-president administration, announced this week.

The Wednesdays prior to Christmas and New Year's will be regular work days, Biron said, and no office parties will be held during working hours.

Selection of these dates permits two four-day "weekends." However, Biron stressed that linking holidays to weekends may not always be possible.

Contributions from the new members are expected to boost the SD Con-Trib-Club fund by \$20,000 a year.

"Returns from the campaign have been gratifying," said Keith Sears, SD Con-Trib secretary. "We feel that the increase in new members will certainly push participation to the 90 per cent mark or over when all cards are in and counted."

San Diego Division had started the campaign with 80 per cent participation.

Of the off-site bases, Holloman is the only one reporting so far, with 13 new members. Returns have not yet been received from Palmdale and Edwards facilities.

Of the 3,823 people contacted, a total of 69 per cent, or 2,315, have returned cards. Of the non-members being solicited, 527 are located outside of the San Diego area. The total of 1,457 signifying their desire to join in contributing to charitable organizations through Con-Trib represents 40 per cent of all non-members.

Morgan in Hospital; Undergoes Operation

A. W. Morgan, Convair SD assistant division manager-operations, was in Sharp Memorial Hospital this week, recovering from an appendectomy. His duties were taken over temporarily by A. E. Hill, Plant 1 works manager. Paul Osborn, Plant 1 factory manager, is filling in for Hill.

Twelve Qualify For Annual SD Savings Award

(Continued from Page 1) lars saved, number of CIPs submitted, number of CIPs and number of intangible proposals installed, will be used to arrive at final standings.

In addition, winners are judged on originality, ingenuity, and completeness of proposals as well as safety and housekeeping record of departments.

The dozen candidates include three from Palmdale facility and one man who has transferred to Astronautics Division since qualifying. They have accumulated a total savings to the company so far of \$774,396 in installed CIPs.

They are: Walter Bailey Jr. (Dept. 600); G. K. Cox (Dept. 101); Carlos Constantino (Dept. 223); W. L. Colahan, formerly of SD Dept. 288 now of Astro; David Dietz of Palmdale Dept. 324; E. J. Hallam (Dept. 292); O. C. Jones (Palmdale Dept. 321); H. S. Murphy (Dept. 292); C. R. Ryan (Dept. 218); E. E. Rose and Kenneth Sinclair, both of Dept. 288; and J. D. Sanders of Palmdale Dept. 328.

The CIP and Employee Suggestion program went into effect at Convair SD in 1942 under Hartzler's supervision. It was discontinued during two slack periods, 1945-47 and in 1950, but has operated continuously since March, 1951.

Total amount of CIP and ES dollar savings during 1958 through the week ending Nov. 7 shows a decline from the 1957 savings at the same point, due to the phasing out of the 440 and F-102 with new commercial and military programs just getting under way.

Out of 1,336 CIPs received so far this year from 499 flat-salaried personnel, 386 have been installed at a saving of \$1,573,304 to the company. Accepted and awaiting installation are 43 proposals which will add \$123,890 in savings.

At this time last year CIP savings stood at \$2,103,497.

Employee Suggestions accepted through the first week in November of 1958 are saving SD Division \$408,371 compared to \$529,151 at the same time last year. Of the 6,482 ESs submitted this year, 1,287 have been accepted. Last year 8,842 Employee Suggestions were submitted and 1,633 installed.

Christmas Tree Sale Dec. 12

Christmas trees will go on sale to Convair SD employees in mid-December at the Employees' Store across Pacific Highway from Plant 1.

Douglas firs and silver-tips in all sizes will be on display in the area outside of the store after Dec. 12, announced W. E. Rickman, manager. Discounts up to 50 per cent off regular retail prices will be offered Convair people.

The store is now on holiday schedule, open weekdays from 8 a.m. to 9 p.m. and Saturdays, 9 a.m. to 5 p.m.

New stock is arriving daily, said Rickman, with a wide variety of gift items and toys on hand. Shoppers are urged to make their selections early to avoid disappointment.

Lay-away service is available from now until Christmas.



LEADERSHIP—B. F. Coggan, SD Division manager and Convair vice president, was awarded plaque for leadership at National Management Association convention in Los Angeles last month. Honor is bestowed yearly by association.

Driver-Rider Files Updated

A complete canvassing of all Astronautics employees in the San Diego area will begin soon in an effort to bring all rider-driver files up to date.

Recent shift changes, transfers, telephone number changes, etc., have made current driver-rider files obsolete. They will be discarded entirely to make way for the new files.

Driver-rider tab cards are being prepared for all Astro employees working in the San Diego area. They will be distributed through departments as soon as they are available.

Employees are asked to fill them out if: they desire a ride; they will accept riders; they desire to form a car pool.

Once returned, cards will be filed and made available to employees. Separate files will be kept at all off-site locations (Mallen Bldg., Point Loma, etc.)

"One solution to current traffic problems is to curtail the number of cars driven to work," said Dick Mitchell, Astro employee services chief. "We hope all employees will take advantage of the files to find rides, riders or to form car pools."

Convair Economist Edward Moore Dies After Short Illness

Dr. Edward C. Moore III, 34, an economist in charge of commercial market forecasting for Convair commercial sales, died Nov. 17, following a short illness. He had been with Convair for two years.

Moore was born in Dallas, Texas, and received his bachelor's and master's degrees from Southern Methodist University. He earned his doctorate in economics from the University of California at Berkeley.

During World War II, he served as a Navy pilot. He taught economics for a short time at both UC at Berkeley and Cal Western University at San Diego.

Survivors include his wife, Patricia; two daughters, Mary Leigh and Susan Ann; his parents, Col. and Mrs. E. C. Moore Jr., of Augusta, Ga.; brother, Marc A. Moore of Dallas.

Services were held Nov. 21 in Berkeley with burial in Sandy City, Utah.

SD Men Teach Science Series

A lecture series on "Physics of Space" is being conducted by five Convair SD physics experts for high school students throughout San Diego County.

Dr. John Bond, chief of physics at SD, gave the opening lecture Oct. 9 on "The Physics of Interplanetary Space." A. R. Hochstim continued with a talk on "Celestial Mechanics—Stars, Planets, Satellites and Relativity" at the Oct. 23 session.

D. B. Medved took "Erosion and Evaporation of Meteors and Satellites" as his topic on Nov. 6 and Dr. C. W. Cook spoke on "Astrophysics—How and Why Stars Burn" on Nov. 20.

The lectures, all held at Mission Bay High School, will be concluded Dec. 11 when F. C. Harshbarger speaks on "Rockets and Space Research."

Convair SD is cooperating with Theater and Arts Foundation of SD County, Scripps Institution of Oceanography, and General Atomic in presenting the science series.

Sycamore Sets Pace For Astro

With Sycamore Canyon Test Site as the forerunner, off-site installations operated by Convair Astronautics have continued to set a torrid cost reduction pace during the first 10 months of 1958.

Overall cost reduction participation continues to run better than 20 per cent higher than the corresponding period of 1957. Noteworthy is the fact installed cost reduction ideas have saved Astro \$623,866 already this year, an increase of \$321,783 over the entire 12 months of 1957.

Key yardstick for measuring cost reduction is through average participation. That is, the number of Employee Suggestions (ESs) and Cost Improvement Proposals (CIPs) received per each 1,000 employees on the payroll.

At the Astronautics factory this figure runs 250 per 1,000 employees.

By comparison, Sycamore Canyon has averaged 688 per 1,000. At the Air Force Missile Test Center in Florida where cost reduction has been stressed only a short while, the average is 283 per 1,000. The Missile Static Test Site has an average of 249 per 1,000. (Vandenberg AFB is in the midst of setting up cost reduction procedures.)

Largely on the strength of off-site leadership, the overall Astro average is 278 ideas submitted per each 1,000 employees.

Through the first 10 months of 1958 some 2,429 ESs have been submitted. Of these, 395 have been approved for a savings of \$93,620. Successful idea submitters have pocketed \$12,833 for their efforts.

CIPs submitted by flat-salaried employees have numbered 431 of which 64 have been installed. They are saving Convair \$525,868.

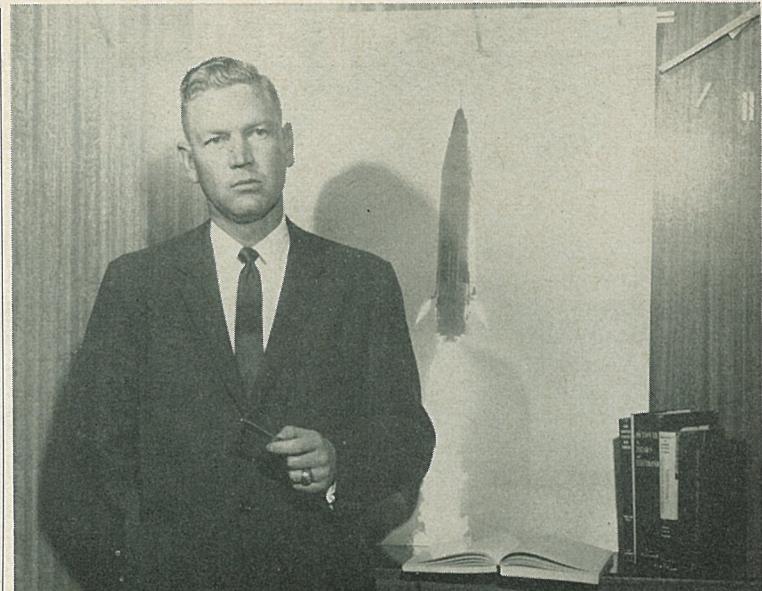
More Engineering People Relocated

(Continued from Page 1) be completed this weekend.

The previously scheduled move of 300 electronics lab personnel to the east end of second floor of Bldg. 51 was put off until this week by construction delay. Administrative offices were moved into the area last weekend.

Ground support planning and design people, numbering about 160, were also moved last weekend (Nov. 21) to the mezzanine of Bldg. 4 vacated by Astronautics personnel who are now located on the ground floor.

Next area to go into the construction program is the northwest section of second floor of Bldg. 51 which was to be turned over to the contractors today (Nov. 26). Running about ten days behind schedule, work on the area will go into February.



"AGE OF SPACE"—J. R. Dempsey, Astronautics Division manager, will chairwoman observance of Engineering Week at San Diego, with theme of "Engineering in Space Age." Dramatic photo of Atlas missile is in background.

Satellite Phenomena Discussed For NATO

Papers by three Convair SD men of the physics section of engineering were presented at the recent conference of AGARD (advisory group for aeronautical research and development) division of NATO held at Copenhagen, Denmark.

Dr. John Bond, SD chief of physics, presented the treatises prepared by Lester Kraus, K. M. Watson, and Sinai Rand at the Avionics panel. According to Bond, the papers, all in the field of electrohydrodynamics, seemed to offer explanation for satellite trail phenomena.

While in Europe, Dr. Bond visited the Royal Radar Establishment at Great Malvern, England, and with Prof. H. S. W. Massey at University College, London.

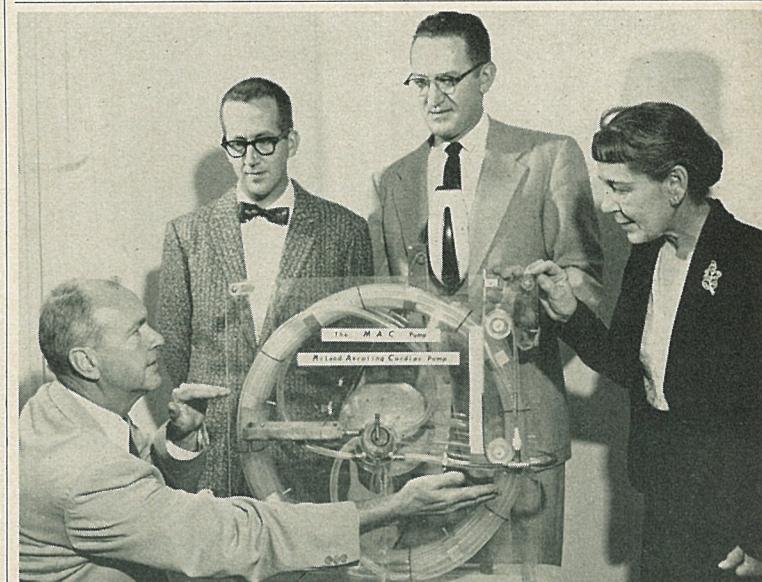
Engineers Divert Christmas Card Funds To Needy Families

A brighter Christmas is in prospect for several Convair families through the generosity of engineering personnel at Convair SD.

All people in the SD engineering department have been asked to eliminate the exchange of Christmas cards with fellow workers and to donate the money they would have spent to a special Christmas fund.

R. E. Bigler of engineering blueprint files is in charge of the collection. All individuals and groups wishing to donate may contact Bigler, third floor mezz of Bldg. 5, Plant 1, ext. 2233.

Separate solicitations within engineering for needy families will not be held this year in favor of the one overall fund collection. All donations will be turned, in a lump sum, to J. K. Field, chief of SD employee services, for division among Convair needy families.



TOWARD RESEARCH—Convair Astronautics Con-Trib-Club last month made first grant of funds, a \$5,000 payment to the San Diego Bio-Medical Research Institute. Money will be used in developing Aerating Cardiac machine designed by John McLeod, left, of Astro. Listening to explanation are, from left, Dr. D. M. Rumbaugh, Institute treasurer, Larry Janson and Peggy Collier, members of Con-Trib-Club Employees' Committee.

Convairity

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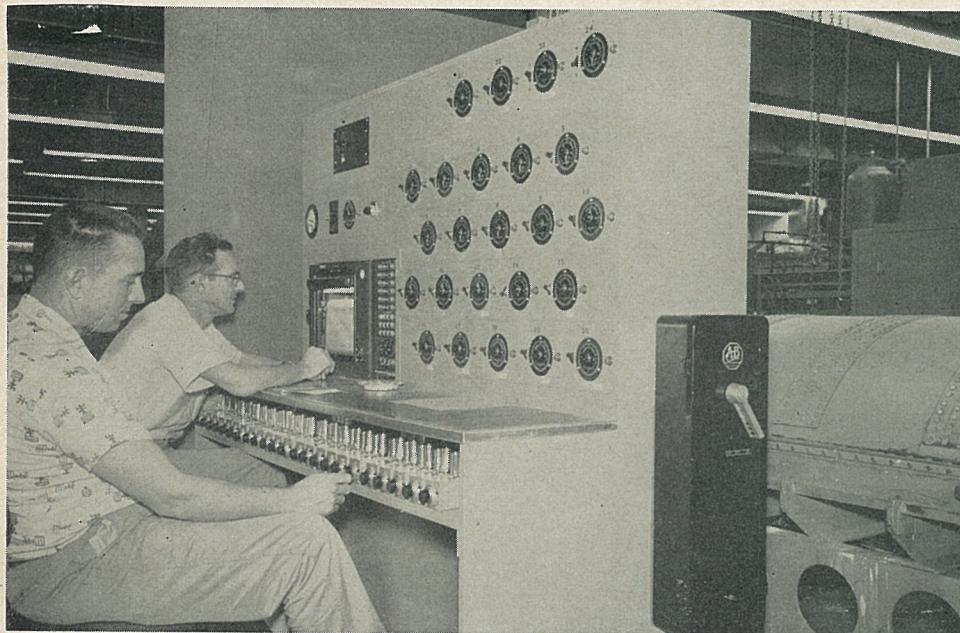
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grace Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weckersheimer, news editor.

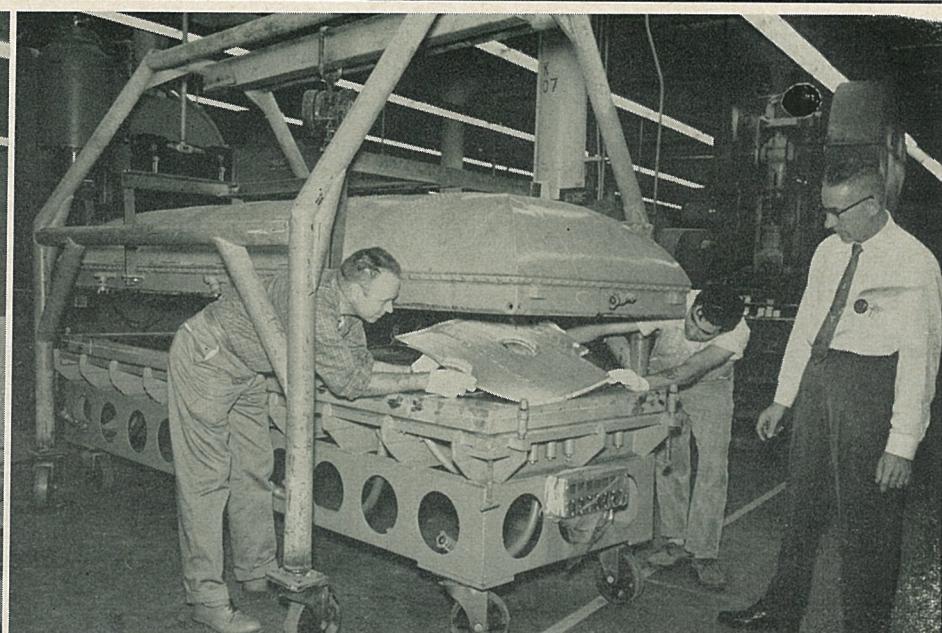
FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr, Horace A. Baker Jr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

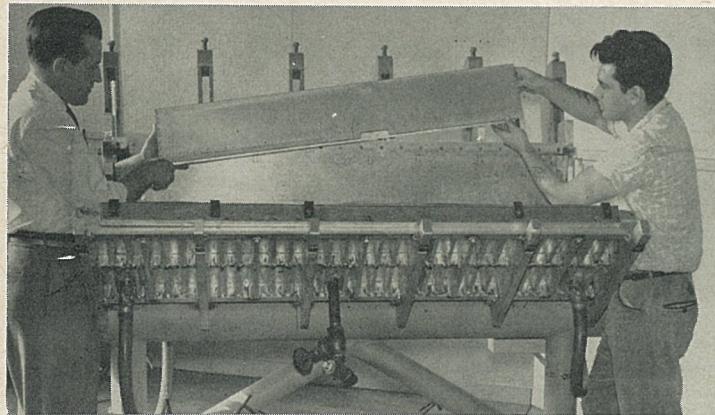
Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337. Staff: Betty Lou Nash.



"BAKERY SHOP"—At far right Al B. Oberg, experimental general foreman at SD, watches R. D. Millar and Rudy Narvaez of Dept. 31 insert honeycomb panel into



aileron skin panel bonding fixture, while in left-hand photo D. R. Conklin and E. A. Meckstroth are at control console, monitoring heat application during process.



R. J. Hogan, SD Dept. 31 assistant foreman, and R. F. Narvaez place 880 tab into smaller bonding fixture. Photos illustrate electric blanket bonding at Convair SD, first aircraft use on West Coast.

Convair SD Takes Lead With Blanket Bonding

"Mother necessity" has again pushed Convair SD into another first.

It is the first aircraft company on the West Coast to put into use the electric blanket bonding method, now turning out components for 880 jet transports.

When experimental department at SD was handed the job of supplying complete aileron assemblies for the 880 in order to meet deadlines, it was faced with the problem of cleaning, curing, and bonding the 60 to 70 parts which go to make up each panel. A. B. Oberg, Dept. 31 general foreman, found it necessary to come up with a method to facilitate the bonding process.

Heretofore, the only Convair facility for bonding was the conventional autoclave, located in Bldg. 3 at Plant 1, quite a distance from the experimental area in Bldg. 5 where the panels are set up.

Knowing that the delicate parts making up the panels, valued at \$2,000 apiece, would run a risk of being damaged in transit and that there would be a time lag in taking their turn at the busy baking oven, Oberg was instructed by Experimental Factory Manager A. B. McFarland to investigate the feasibility of electric blanket bonding.

The bonding fixtures, resembling huge steam presses, were designed and built in experimental tooling to specifications to do the job. Seven bonding fixtures of various sizes to accommodate the large aileron panels, and smaller ones for trim and control tabs, use the same principles of heat and pressure as the autoclave.

The electric blankets, furnished by Safeway Heat Elements, Inc.,

Middletown, Conn., are made to fit Convair's fixtures. They will bond up to 80 pieces before they need replacing. The blankets have built-in elements in sections so that the voltage at any one point is never more than 110 volts, for safety measures.

The honeycomb panels are bonded at 350 degrees F. under 50 lbs. of air pressure, for one hour.

The control consoles monitoring the power for the bonding fixtures are unique in electronics control for thermal bonding ovens. They also were designed and constructed at Convair SD experimental instrumentation under supervision of R. B. Thompson, general foreman.

Tiny thermistors, no larger than grains of salt, act as the "brain" to direct power to the electric blankets. Up to 35,000 watts of power is necessary to maintain control during baking period, and as many as 25 individual control circuits are connected to blankets to keep the temperature within 10 degrees, minus or plus, of the 350-degree baking heat.

Only one man is needed to monitor the entire operation.

The skin panels, themselves, are made in experimental fabrication. Although the honeycomb core is supplied by subcontractors, it is cut to wedge shape to fit the tab and panel assemblies on routers, designed and built at Convair.

Experimental has completed three ship sets of the aileron skin panels of the 40 it will be building for 880 planes, said McFarland. At peak manufacture, the six men in metal bonding will be turning out one ship set of bonded parts a week so that the assembly section in turn can supply ailerons at the rate they will be needed in 880 mating.

Fireman E. L. Kinney Dies Nov. 1 at 41

Funeral service for Ellsworth L. Kinney, Convair Pomona fireman who died Nov. 1 of leukemia, was conducted Nov. 4 in Pomona.

Kinney, a native of Michigan, had been with Convair since May, 1956. He was 41 years old. His survivors include his wife, Susie B. Kinney, of Pomona.



"There's nothing to it, officer! All married couples quarrel a little the first year!"

Palmdale F-106 Takes Off Soon For Cold Tests

Air Force Capt. Thomas Bogan of Wright Air Development Center is making test flights in an F-106A at Convair Palmdale preparatory to taking off early in December to fly a series of cold weather tests in Alaska.

Bogan will fly to Eielson AFB, Fairbanks, Alaska, via Great Falls, Mont., Edmonton and Whitehorse, Canada.

The F-106A will undergo evaluation tests under conditions of extreme low temperatures, ice and snow along with other planes of the task force including Convair's B-58. Task force commander Maj. Ray Gordon of WADC will have overall responsibility.

Special instrumentation has been installed in the airplane at Palmdale including a digital tape recorder similar to that installed in the B-58 for all-weather tests, photo panel and wire recorder.

The F-106A to be flown to Alaska, No. 56-0466, this past summer went through the climatic project laboratory at Eglin AFB, Fla., where it was subjected to temperatures ranging down to 65 degrees below zero to obtain preliminary information on problems likely to be encountered in the Alaska tests. Improvements indicated by the Eglin tests were accomplished at Palmdale.

Following its return from Alaska, anticipated sometime in February, the F-106A will undergo adverse weather testing at Wright-Patterson with the major portion of this program scheduled to be flown by Capt. Kurt Wimberly of WADC.

Next summer the aircraft is slated for further weather tests at Yuma, Ariz.

Project engineer Charles Coombs of WADC will accompany the F-106A to Alaska in support aircraft, and the test crew in Alaska will include Convair tech representative Dave Johnson, crew chief George Smith and instrumentation specialist Freedman Shera, both of WADC; Bob Boyles of Pratt & Whitney; Charles Fairbrothers and Carl Nelson, both of Hughes.

Data obtained during the tests will be presented in a technical report and incorporated in the cold weather portion of the pilots' handbook.

F-106s To Fly East In Test Program

Henry Schuette of SD flight test operations will head up a team of approximately 20 Convair men from San Diego and Edwards assigned to an F-106 testing program at Hanscom AFB near Lexington, Mass.

The group, including flight and instrument test engineers, is expected to go East next month to be on the ground before arrival of two F-106s scheduled to fly to Hanscom in January. George Putness, chief of engineering flight test, indicated. The Convair team will be at Hanscom for about 11 months.

SD Teen-agers Tackle Production Problems

Over two dozen teen-agers are deep in production problems as two Junior Achievement companies, sponsored by Convair SD Management Club, swing into operation. This is the sixth year that the SD club has participated in the JA program.

E. R. Fink, the club's board of control JA chairman, and W. H. Marshall, chief adviser, report that the two companies are now turning out articles in time for Christmas sales.

Fourteen high school girls and boys are working together as the M & M JA Products Co. They are producing a folding metal holder to be known as the Ready-Reader Book Holder, which was devised by the company's chief adviser, W. E. Gillie of Dept. 25. C. Kildgore, also Dept. 25, will act as business adviser. Don Quinn (Dept. 8) is sales adviser and G. Buck (Dept. 25), production adviser.

Second Convair-sponsored company is the L.R.B. JA Co., composed of 12 teen-agers. They are assembling lunar rocket banks patterned on the Atlas missile design with a spring mechanism which will shoot coins as large as 50-cent pieces into a slot in the banks. Marshall (Dept. 25) has taken direct charge of this company as chief adviser. C. D. Saxon and O. Browning, both of Dept. 25, are business adviser and production adviser, respectively. Fred Hamlin of Dept. 1-41 is sales adviser.

The products will be marketed through house-to-house campaigns and in downtown stores.

The young businessmen and women, between 14 and 19 years old, are all San Diego County high school students in the upper ten per cent of their classes scholastically.

Under the Junior Achievement program, they learn the complete procedure of organizing a company, selling stock, producing and marketing articles, and handling of all monies involved. They do their own banking through the

Junior Achievement bank supervised by the Bank of America.

Each company elects a president, secretary, treasurer, sales manager, and production manager. Each member must own at least one, but not more than five, shares of stock at 50 cents a share, with the companies capitalized at between \$100 and \$150. Shares are sold on the same basis to outside stockholders who are paid back at the end of the term, with or without dividends, according to the profits realized by the companies.

The companies are in operation 60 hours over a period of 30 weeks, from the middle of October into next spring. The members work one night a week for two hours at the Junior Achievement headquarters, 1122 Seventh Ave.

Each member receives a wage of 15 cents an hour at beginning of operations. Raises are voted as sales mount and receipts roll in.

Richardson Speaks At Texas Meeting

Rear Admiral L. B. Richardson, USN, Ret., senior vice president of General Dynamics Corporation, was one of the principal speakers at the recent conference on improved utilization of scientists and engineers.

Conference was held at Dallas, Texas.

Richardson, introduced by August C. Esenwein, Convair Fort Worth division manager, spoke on "incentives that bring out the best in both technicians and professionally trained men."

Frank Davis, Convair Fort Worth chief engineer, was a panel moderator, according to Frank Clayton, chief plant engineer who was a member of the committee which arranged the conference.

Also attending from Convair FW were R. H. Schwarz, H. A. Bodley, J. B. Ellis and C. W. Cooper.



IN BUSINESS—Assembling "missile banks" for holiday trade are 12 young Junior Achievement members of the Convair-sponsored L.R.B. JA Co. At rear left, C. D. Saxon (Dept. 25), business adviser, looks over accounts with company's officers.



TRAINING TALK—Realignment of educational services offered at Astronautics finds quartet above in key positions. From right, R. F. Smith, chief of training, supervisors J. A. Croft and D. D. White, and B. D. McClure, assistant supervisor.

Educational Services Realigned For Astro

A realignment of educational services provided by the Convair Astronautics training section has been completed, according to M. V. Wisdom, Astro's manager of industrial relations.

Wisdom indicated the training section's flexibility in providing educational services for all Astro personnel would be further increased during the years ahead.

"In an industry as complex as ours," Wisdom said, "our policy must be to integrate the skills, knowledge and capabilities of all employees to meet the increasing technical and administrative requirements of our business."

(Astro has been involved in an all-out training program for some time. With limited payrolls in 1956, some 357 classes were attended by 5,928 students. In 1957 there were 493 classes for 8,005 students).

In the new plan, Robert F. Smith, chief of training, continues as director of all educational services. On his staff are supervisors of two major functions: Donald D. White, executive and supervisory development; and Jack A. Croft, professional and technical education.

White continues in executive development coordination and directs the specialists engaged in supervisory selection and development programs.

All professional and technical educational services are under the direction of Croft. Professional education includes such activities as engineering courses and seminars, Air Force training with industry, coordination with local colleges and universities as well as professional groups and societies.

Major emphasis is being placed on technical training to keep Astro employees abreast of frequent changes in missile fields. Product systems, manufacturing skills and techniques, safety, security and company orientations are typical subjects. An important addition is the program de-

veloped for the product support department and headed by Bill McClure, assistant supervisor. This includes training for the new support center as well as assistance to off-site bases.

McClure's group launched an 11-week program this month which includes a task force of 37 technicians. This group will be joined by another class of 30 trainees about mid-December. Once trained, these technicians will form the backbone of a new maintenance team for the support center.

"Decisions of priority stand out in all our educational planning," Smith said. "Each course we offer is important. We must put as much emphasis on security and safety training as instruction in intricate systems and specialized fields.

"We are fortunate in having a staff of instructors capable of teaching a wide range of subjects. We also rely on teaching talent from associate contractors and other Astro departments," Smith added.

Photo Fans Will Dine At Christmas Party

The Astrolens, Astronautics photography group, will mix business with pleasure Dec. 8 when they hold a 6:30 p.m. meeting at the Astro cafeteria, according to Larry Tuttle, president.

It will be the group's first Christmas party, complete with a buffet dinner.

Afterwards, judging of members' photos will be held. Turkeys will be presented as prizes.

Tuttle asks that those planning to attend contact him at ext. 1104 to insure reservations for supper.

Log Book Entries

Service Emblems

ASTRONAUTICS
The following service emblems are due during the period Nov. 16 through Nov. 30.

Fifteen-year: Dept. 401-0, R. C. Emerson; Dept. 551-3, Sam Weiss; Dept. 758-0, R. B. Wilson.

Ten-year: Dept. 214-1, M. L. DeShon.

Promotions

ASTRONAUTICS
Promotions and transfers to or within supervision effective Nov. 10. Dept. 183-3, Systems and Procedures: To office services asst. supervisor, B. K. Bockhorn.

Dept. 192-1, Tabulating: To tabulating supervisor, J. W. Spillman; to tabulating asst. supervisor, W. Ciofai.

Dept. 250-3, Plant Engineering: To plant engineering asst. supervisor, R. L. Richards.

Dept. 350-0, Product Support Base Activation: To chief of product support, VAFB, G. A. Calvert.

Dept. 578-3, Convair Operations-Sycamore: To foreman Gr. V, L. F. Lau, R. D. Wasser; to asst. foreman Gr. V, J. M. Guess.

AFMTC

Transfer to supervision effective Nov. 10. Dept. 571-3, Operations Support: To asst. foreman Gr. V, L. McDufford.



THERMADOR, ANYONE? — "Bug picking" was at its best Nov. 2 when Astro Divers invaded waters off Todos Santos Islands in Mexico. Bob Nicholas displays 10-pound lobster he wrestled from depths.

Parmley's 76 Paces Golfers

Dick Parmley paced Astronautics turkey seekers Nov. 8-9 when he fired a gross 76 for honors in the CRA turkey sweepstakes golf event staged at Rancho Santa Fe.

Low net in Parmley's handicap group (0-12) went to Harry Richards with a 70, followed by Jim Batson (72) and Ray Tonsager (72). The 13-18 division was won by Bill Kenney with a gross 86. Low net went to Wayne Orlowske (72), Tom McCollock (74) and Hank Billings (74).

The 19 and up division was won by Nick Montellegro with a gross 84. Net honors fell to Gerry Ford (69), Ken Bradley (70) and Andy Corrao (72).

* * *

Ray Tonsager of Astro fired his first hole-in-one during the November CRA sweepstakes when he dropped a ball into the 7th hole cup (145 yards) with a four iron. He was playing with Art King, Hank Johnson and Herb Walker.

* * *

Astronautics golfers will hold another turkey sweepstakes Dec. 6-7 at Balboa Park. Entries may be made by calling Bunny at ext. 1111 through Dec. 3.

Nine Teams Sign In Shop League

Nine teams have signed up for Convair Astronautics shop league basketball action this winter, but three other teams are needed, if present plans are followed.

Ray Mendoza of CRA said that two six-team leagues are being considered. Tentative plans call for play each Friday night beginning shortly after the first of the year. Meanwhile, various teams have organized and begun practice.

The following teams are now entered with manager's names listed: Dept. 578-3, Loren Baranowski; Dept. 532-4, Pete Peters; Dept. 214-2, Uvaldo Martinez; Sycamore Canyon, Bob Carr; Dept. 537-3, Don Ericson; Dept. 591-5, Jack Dorsey; Dept. 535-7, John Oney; Dept. 595-1, Bill Rektor; and Dept. 595-3, Stan Scarborough.

Any group interested in participating may contact Mendoza at ext. 1111.

Astro Management Club Meets Dec. 17

An evening of entertainment has been promised for Convair Astronautics Management Club members attending the Dec. 17 monthly meeting slated for the Caribbean Room of El Cortez Hotel.

Long range planning and contracts department are sponsoring the meeting. Highlighting the affair will be professional entertainers. A gourmet dinner will be served.

Black Wins Rifle In Game Drawing

Top winner in the Big Game Drawing staged by the Convair SD and Astronautics Gun Clubs this month was Harry M. Black (Astro Dept. 451). He left the drawing toting a Remington lightweight .22 pump rifle.

Another Astronautics man, Henry E. Johnson (Dept. 321-5) placed fifth, winning Sterling silver cuff links and tie clasp.

CRA Water Ski Boat Figures in Rescue

Astronautics' new 16-foot Chris-Craft water ski boat did yeoman duty this month for water skiers.

Four Astro men (Bill Johnson, Lincoln Grady, Charles Moore, Dave White) were securing the boat at its mooring during high winds Nov. 15 when they saw a sailboat capsize in the entrance to Mission Bay.

The men quickly hauled the occupants aboard, then towed the boat to safety.



REMEMBER, NOW! — First Astronautics CRA holiday dance has been set for Dec. 20. Shirley Landrum and Estella Pfeffer (both Dept. 545-3) use king-sized calendar as reminder to reserve date. Gala affair will be in Caribbean Room of El Cortez Hotel and open to all Astro personnel and their guests.

ASTRO HAMS PLAN CRA RADIO STATION

A complete amateur radio station is in the offing for members of the Astronautics CRA Radio Club, according to Ed Dodero, CRA representative.

The Astro group will have full equipment for sending and receiving. It will be located in one of the CRA Clubhouse buildings now being readied. J. Jay Carr, W6FAY, is directing installation. An application has been filed for a club amateur license.

The club has also launched a year-long contest to see which member can make the most confirmed contacts before Nov. 1959. Turkeys will go to the "ham" making the most contacts at home and the one making the most contacts with club equipment.

MUSIC APPRECIATION GROUP PROPOSED

A growing interest in organizing a music appreciation group at Convair Astronautics has prompted CRA to send out a call for prospective members. All persons interested in participating in such a group that would include hi-fi and stereo activities are asked to contact Ray Mendoza at ext. 1111.

"GOBBLER RALLYE" SET FOR SUNDAY

Astro's Sports Car Club has planned a "Gobbler Rallye" for 12:30 p.m. Sunday (Nov. 30) to start from the Astro parking lots. Three hours later a halt will be made for hot dogs and drinks. Winners will receive turkeys.

BRIDGE MEETINGS DEC. 11 AND 18

Convair Astronautics Bridge Club has altered its regular meeting schedule for December. Meetings will be held on Dec. 11 and 18 at the Barcelona Bridge Club, 4th and Juniper.

Admission Only 25 Cents For Hypnotist Show

Time is running short for the purchase of bargain-rate tickets to a special family attraction planned by the Astronautics CRA Women's Council for Dec. 4.

Richard N. Mikesell, noted hypnotist, will headline a program set for 7:30 p.m. at the Pacific Beach junior high school. Also appearing will be Dan Robinson, a memory expert.

Capacity of the auditorium is 700. That's how many tickets CRA will sell for only 25 cents each. They are good for two full hours of family entertainment, including many baffling features.

And for the admission price those attending are entitled to chances to win four Christmas turkeys as door prizes. In addition, Mikesell will give two free \$50 courses in self-hypnosis.

Tickets are available at Astro employee service offices, Bldg. 8, and from the following off-site personnel: Mallen Bldg., Doris Wells; Barnard School, Jack Boyle; Point Loma, John Staton; Sycamore Canyon, industrial relations office; and at the Plant 1 industrial relations office on the mezz of Bldg. 4.

Chess, Checkers Club Under Way

An Astronautics Chess and Checkers Club is now in full operation following a Nov. 14 organizational meeting attended by 22 persons.

Elected to office were: Art Munson (Dept. 535-5), president; J. W. Horning (Dept. 756), vice president; and R. R. Whittemore (Dept. 531-2), secretary-treasurer. Also named was a tournament committee made up of Munson, L. P. Busick (Dept. 595-3), Larry Green (Dept. 280-6) and Bill Aiken (Dept. 322-3). Busick is the chairman.

Mapped out was a full program which will include, in the future, Swiss, round-robin and other tournaments as well as interclub matches, rapid chess, rating point play and various checker events.

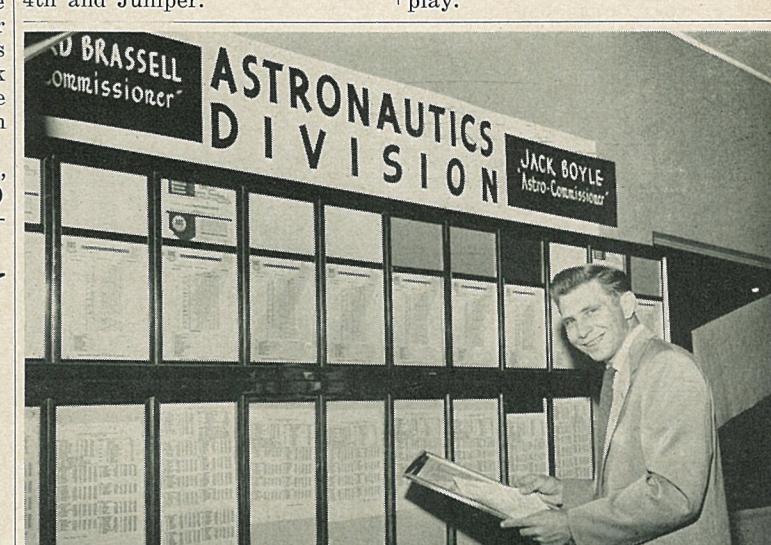
Meetings are slated for 7 p.m. on the first and third Friday of each month in the Astro executive dining room.

Winter Ball Club In Loop Contention

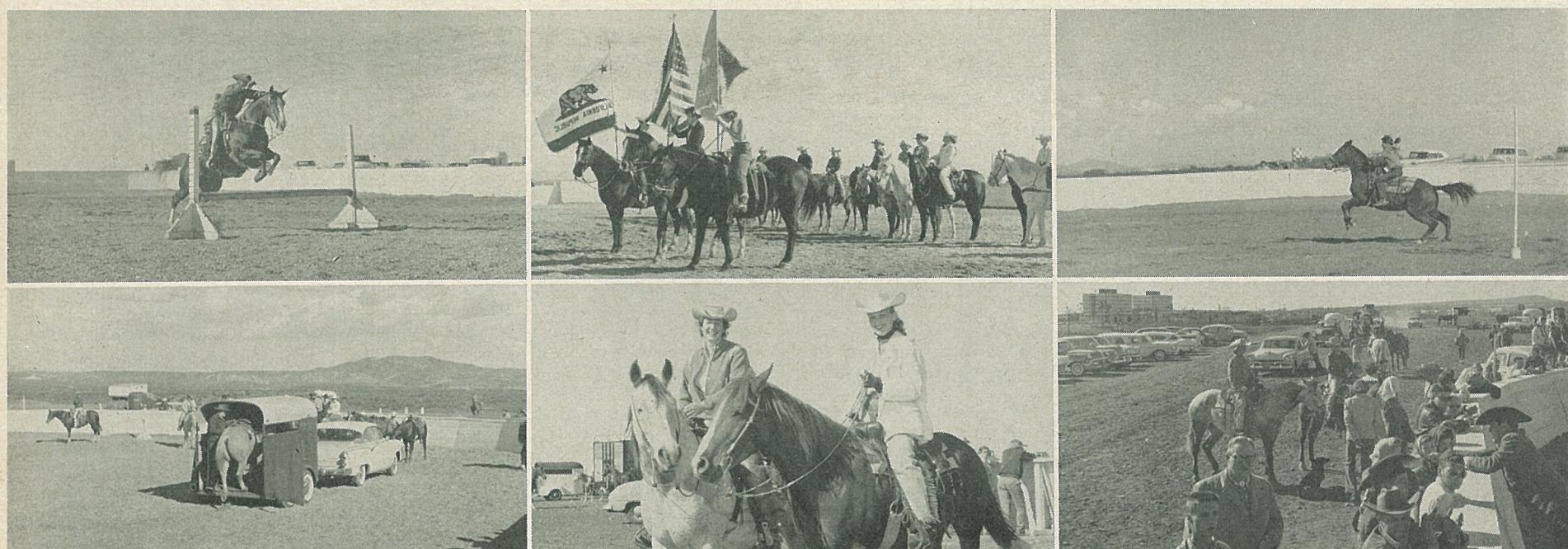
Astronautics' winter baseball team continues in contention for league honors in the Industrial loop, taking two more games during the past two weeks.

The Astro hardballers banged out an 8-2 victory over the Logan Heights Merchants, then turned on the steam to pass the Volks Jewelers by a 13-7 count.

Sunday (Nov. 30) Astro meets the high-flying Lemon Grove Merchants, one of the top teams in the league, at Linda Vista. A game Dec. 7 with National City A. C. winds up the first half of play.



KEEPING POSTED—Overnight job of recording league standings and individual performances of some 1,000 Astro bowlers now in winter action is no simple task. Assignment goes to Bob Baker, shown above bringing Astro board at Clairemont Bowl up to date. His wife, Jean, does compiling.



DEDICATION—New CRA horse show ring was dedicated Nov. 16 and 400 turned out despite chill breezes. Photos are by Astrolens Club's Larry Tuttle.

All-Astronautics Xmas Dance Set For Dec. 20, CRA Sponsoring

An all-Astronautics Christmas dance, sponsored by Convair Recreation Association, is now set for Dec. 20 in the Caribbean Room, El Cortez Hotel.

CRA is taking steps to hold all prices to a minimum. Tickets will be only \$1.50 per person.

However, capacity of the Caribbean Room for this type affair is about 600. Therefore, all tickets will be sold on a first-come, first-served basis. They will be available at employee services outlets.

As an aid to groups wishing to

Engineering Sections Plan Dec. 13 Dance

Plans for a gala Christmas party are being formulated by members of Astronautics design and systems design sections of engineering.

The informal affair will be Dec. 13 at Mission Valley Country Club and will feature a buffet dinner, dancing and an unusual 10-foot "Atlas" yuletide tree. Each couple will bring a gift to be forwarded to a Tijuana orphanage, according to Jim Lew, general chairman.

CRA Calendar

(Convair Recreation Association at Astronautics continues to grow. Below is a complete list of sponsored activities, plus the names of those who are directing them. Astro employees and members of their families are welcome to participate in any activity. For information, contact those named below or CRA office at ext. 1111.)

★ ★ ★

ARCHERY—A. D. Stone, ext. 1335.

ART CLUB—Bob Craft, dial 701 then ask for ext. 177.

BADMINTON—John Leib, ext. 715.

BALLROOM DANCING—Bunny Ingraham, ext. 1111.

BASEBALL—Ray Mendoza, ext. 1111.

BASKETBALL—Bob Ballard, ext. 1318.

BOWLING—Willard Brassell, ext. 1166, or Jack Boyle, AC-2-0531.

BRIDGE CLUB—Archie Bowden, ext. 1333.

CAMERA CLUB (Astrolens) — Ken Rinker, ext. 2492.

CHESS CLUB—Art Munson, ext. 1912.

CHORAL CLUB—Ray Mendoza, ext. 1111.

COIN CLUB—J. J. Garside, ext. 1663.

FISHING CLUB—Herb Hawthorne, ext. 1053.

GOLF—Art King, ext. 1748.

GUN CLUB—Ezra Johnson, ext. 1254.

MODEL RAILROAD—Dave Fyffe, ext. 1189.

PHYSICAL CULTURE—Clyde Burkhardt, ext. 2283.

PISTOL CLUB—Bill Geopfarth, ext. 2139.

RADIO CLUB—Ed Dodero, ext. 1063.

RIDING CLUB—F. W. Augustine, ext. 1911.

SKIN DIVING—John Leib, ext. 715.

SNOW SKI CLUB—Bob Weaver, ext. 1917.

SOFTBALL—Ray Mendoza, ext. 1111.

SPORTS CAR CLUB—Bill Rector, ext. 2474.

SQUARE DANCING—Marty Stutz, ext. 1441.

TENNIS—Larry Chambers, ext. 1841, Plant 1.

WATER SKI CLUB—Bill Johnson, ext. 1441.

WOMEN'S ACTIVITIES—Jean Bryan, ext. 1113.

CRA Sports & Recreation Convairity



IMPROVISING—"Dry land" ski instructions have been progressing for members of Astro Ski Club in anticipation of coming season. Randy Frank (seated) and Lillian Poltere get word from Bill Witzell. Session was on same day storm dumped several inches of snow on Southern California mountains!

Astro Drivers Shine In Palomar Rallye

Astro's youthful Sports Car Club popped into prominence in Southern California car circles Nov. 9 by besting some of the top teams in the area in the "Rallye of the Stars" held on Palomar Mountain.

Astro's three-car entry of drivers Bill Rector, Jack Stevens and Tom Kienholz and navigators George Blondin, Jean Stevens and George Kendall won "best team" honors.

Individual honors also went to the driver-navigator combinations, Rector and Blondin winning "best of Austin Healy" and the Stevens combination taking "best of Jaguar."



POTENT YOUNGSTERS—Despite status as newly-formed club, Astro Sports Car Club bested top Southern California teams in Nov. 9 "Rallye to the Stars." Bill Rector holds first-place team trophy for team members George Blondin, George Kendall, Jean and Jack Stevens. Individual trophies are also shown.

Despite Cold, 400 See Show

Despite unusually cold weather, some 400 persons turned out Nov. 16 to take part in the Convair Astronautics horse show and dedication ceremonies for the new ring in the CRA recreation area.

Some 200 entries had been received but the list dropped to 120 when ice and snow curtailed travel in the San Diego back country.

All events went off on schedule with contestants as young as 8 years old taking part. Ribbons and trophies were presented in each class.

One of highlights was the official grand entry and dedication ceremonies. Dick Mitchell, Astro chief of employee services, presided at the presentation of colors. Receiving the national colors was Patty Lanphier, daughter of T. G. Lanphier Jr., Convair vice president.

"Despite setbacks encountered, both contestants and spectators enjoyed the show," said F. W. Augustine, CRA Riding Club representative, "which encourages us to plan more for the future."

At present the club is contemplating as many as three shows each year, all to be held during the spring and summer months.

The new riding oval will now be used for classes and special events.

Pistol Club's Numbers Rise

Convair Astronautics Pistol Club reports a steady increase in participants at two regular shoots staged each month, but there is still room for more, according to Bill Geopfarth, CRA representative.

"We have several qualified instructors, plus a limited number of pistols available," Geopfarth said. "Beginners or semi-skilled marksmen are invited to turn out and take part."

The club meets at 9 a.m. the second and fourth Sundays of each month at the San Diego Police Range.

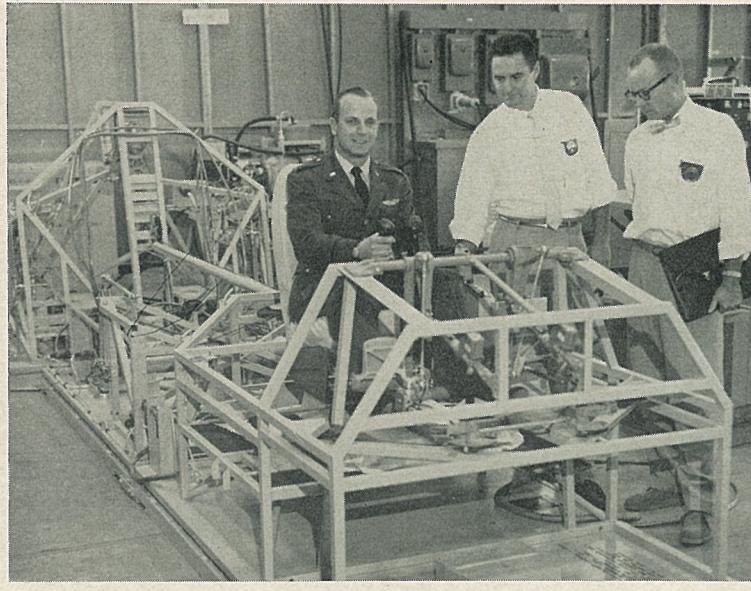
Geopfarth fired a 291 for first in the .22 Police event held Nov. 9. Other winners were: expert, Ray Raymond with a 287; sharpshooter, Ralph Crosley with a 276; and marksman, Ed Maiers with a 274.

Russ Oliver shot a 277 to win the center fire short National event. Geopfarth and Raymond placed second and third.

Physical Culturist Group Is Organizing

Astro's physical culturist group held its first organizational meeting this month and named a group of pro-tem officers to serve until a regular election is held Dec. 2 at a meeting set for 7:30 p.m. in the executive dining room.

Homer Williams is acting as president with Harold Miller, secretary. At the same time a committee was appointed to recommend a slate of officers.



IN THE COCKPIT—Lt. Ronald Meinert, 86th Fighter Squadron, Youngstown, Ohio, (believe it or not) is in "cockpit" of F-106. This is one of 16 units which make up F-106 mobile training unit. With him are Lee Orr, coordinator of program for Convair Palmdale, and William Liddle of Convair SD, material department coordinator.

Mobile Training Units Teach Class About 106

A three-week F-106 familiarization program for Air Force maintenance personnel got under way today (Wednesday) at Convair Palmdale utilizing the first F-106 mobile training unit.

Classes are being conducted by SD Dept. 15 instructors in the east end of Bldg. 301 with the training unit set up in adjoining station C-18.

The unit is composed of 16 trainers representing all systems of the F-106 jet interceptor including pneumatic, hydraulic, landing gear, emergency escape, heating and ventilation, speed brake and drag chute, J-4 compass, AC and DC power, fuel, liquid oxygen, and power equipment systems.

They are designed to show functional operations of all F-106 systems with production parts used wherever possible for authenticity. A major part of familiarization instruction consists of having students find and fix malfunctions which instructors deliberately create in the systems.

The trainers were built according to Convair design and specifications by vendors Horkey-Moore of Torrance, Magee-Bralla of National City, Hughes Tool Co. of Culver City, Pac-Aero Engineering Co. of Los Angeles, and Burton-Rodgers of Cincinnati, Ohio, and were sent to Convair Palmdale under subcontract for acceptance by Convair and subsequently by the Air Force.

M/Sgt. Alfred J. Ramo of Wright-Patterson AFB, Dayton, Ohio, represented the Air Force in the sell-off inspection completed last week in conjunction with William Marshall, AF plant representative at Palmdale.

Assisting with operation of the trainers were SD Dept. 6 group engineers Fred Buffington, Earl Asbury, Jerry Hurlee, and Dick Zeich. William Liddle of Convair SD was material department coordinator and Lee Orr, manufacturing analyst of Palmdale industrial engineering department, coordinated the program for

Palmdale facility.

Following the training session, the first mobile training unit will be airlifted to ADC bases throughout the country for further Air Force F-106 familiarization. Although the first unit was delivered and inspected at Convair Palmdale, the remaining three MTUs will go directly from vendors to ADC bases.

Each trainer section of the unit is built to separate into sections, each fitting into its own especially-designed wooden cover to make the assembled unit easily transportable.

Garrison and Clark Named on National Safety Committee

J. W. Garrison, Astronautics chief safety engineer, and M. V. Clark, Convair SD safety engineer, have been named to posts on the executive committee of the Aeronautical Industries Section of the National Safety Council.

Clark was appointed education and training chairman and Garrison, program chairman, for the Western section at a recent meeting of the executive committee in Chicago, Ill.

As educational chairman, Clark will be responsible for the correlation and distribution of information on safety training programs. Garrison will coordinate plans for the next annual conference with chairmen of the Eastern and Central sections and outline programs for coming regional meetings.

LAB SCHEDULES CHRISTMAS DANCE

Annual Christmas dance for electronics lab personnel at Convair SD, Plant 1, will be held at the Hotel del Coronado, 9 p.m., Dec. 20. Tickets can be purchased from representatives in the department, said D. A. Graybill, (Dept. 6).



"The beautiful thing about this location is the nearness to your job . . . on your day off you can actually SEE the very spot where you work . . ."

High Speed Cameras Halt 'Faster Than Eye' Action

Incredibly high-speed motion picture cameras (through which film can travel at over 140 miles per hour!) are being used increasingly at Convair SD to diagnose ills in moving machinery and to "slow down" fast-acting laboratory tests so they can be observed with the naked eye.

Current project of the SD motion picture section is to "stop" the flight of 600 mph hailstones fired from air guns at exposed surfaces of the 880 jet transport in tests at the structural test facility.

Past projects have included shots during "chicken-firing," seat impact, and head impact tests for the 880; performance of Atlas components; canopy and seat ejection and missile firing of the F-102 and F-106, as well as rocket sled tests at Edwards AFB, Warren Kemmer, SD photography supervisor, explained.

The motion picture section's two Wollensak Fastax 16 mm cameras, capable of speeds up to 8,000 frames a second, shoot 100-ft. of film in a half-second to capture faster-than-eye action. Developed movies, projected at 24 frames a second with sound or 16 frames silent, expand the half-a-second of action to three minutes to give observers a detailed account of otherwise invisible motion.

In the slowed-down views, the hailstones, with speed reduced by 200 times, seem suspended in air. From the films it can be easily seen if they are of proper frozen consistency or if they are disintegrating into soft snow, too weak for valid tests which determine structural weakness of parts before they are accepted for installation.

By snapping the flight of hailstones, or other fast-moving objects, across a lined grid, the speed can be calculated accurately from the movie shots.

Timing marks, called "light pips," are registered along the length of the film at 100, 120, or 1,000 marks a second as another timing device to tell just how fast an object is moving or the length of time of an event.

"One of the greatest hazards in taking high-speed shots is the lack of time," explained R. R. Koser, supervisor of the test and analysis group of motion picture section. "A half-second is gone in the blink of an eye."

"The stage must be set well in advance and timing perfectly synchronized before the cameras start shooting, in order to catch the lightning flash of action."

Movies recently were completed of hailstone destruction tests on B-58 panels sent from Fort Worth for the "package deal"—tests and film records. The B-58 parts were given the entire treatment and peppered with hailstones of every size, from pea-size to "Texas-style" (3-in. in diameter) with all tests caught by SD's high-speed cameras.

"Chicken-firing" tests for the 880 are conducted on different types of transparent material to find out which kind will stand up best under actual flight conditions when unlucky birds are dashed against the transport's windshields. Live chickens, of

FW and Pomona Men At Electronic Meet

Three Convair men, two from Fort Worth Division and one from Pomona, will be on the program of the third Electronic Industries Association conference on reliable electrical connections Dec. 2-4 in Dallas, Texas.

Presiding chairman of the conference is Ralph S. Reade of FW customer service department. Felix Quirino, reliability coordinator at Convair FW, will be chairman of the conference housing committee.

Henry Chrystie, Convair Pomona, will discuss special missile to launcher connectors.

about 4 lbs. in weight, are chloroformed and fired through compressed air guns to simulate impact of live birds in flight.

One camera is positioned to catch speed of the birds as they shoot across the white-lined grid while a second camera in the cockpit snaps the windshield at instant of impact to show pattern of cracks or breakage.

During seat impact tests the cameras catch the sequence of events as dummies and seats are lifted en masse and swung with force against solid walls to determine damage in event of plane crash or explosion.

The high-speed photographic technique has been used with remarkable success to iron out problems in development of new cutting tools. Slowed-down movies of the new higher-speed tools which revolve at 3600 rpm—faster than the eye can see—clearly show just how the chips are falling and from what angle.

Defective blades are detected instantly when the action is slowed on film to one revolution in every two seconds. Information gained in a single test and

flashed on the movie screen is often enough to guide redesign of cutters for perfect operation.

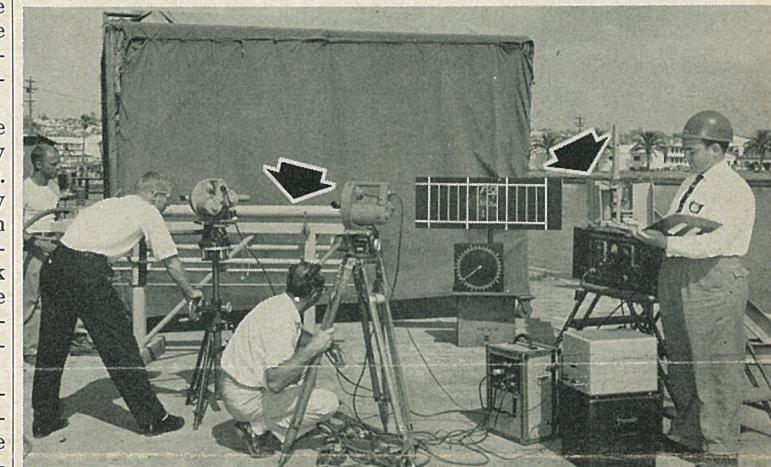
Correct speed of cutting various materials, especially new alloys now under research, has been determined by use of high-speed camera records.

SD photographers use ingenious methods to get their shots. In spots where the object is not visible to the naked eye, mirrors are set up and pictures taken of the reflected action.

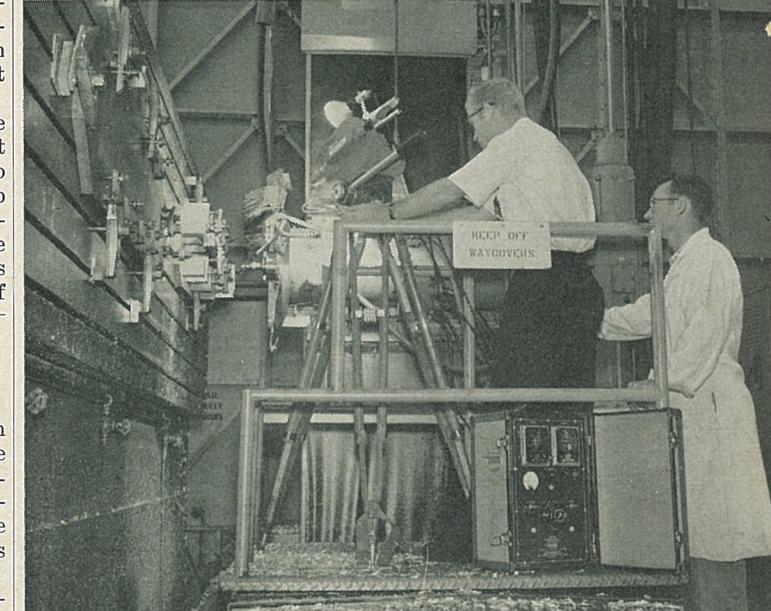
Mirrors are used also as a safety measure when it is dangerous to get within camera range. In taking recent shots of General Atomic's reactor, SD's lensmen operated the camera by remote control, shooting into mirrors.

Convair SD acquired its first high-speed camera several years ago for use during thermodynamic lab tests. Since then, use of the cameras has increased so that there is rarely an event in testing that is not recorded on film for future study, said Koser.

Three trained men now operating SD's fast cameras are Jerry Green, Dudley Kendall, and Darold Berry.



"SHOOTING BULLETS"—In top photo SD movie cameramen are about to photograph hailstones shot from air gun (arrow) against 880 jet part (arrow). Grid gives engineers check on velocity. Left to right, Kenneth Pauley, operating gun, Jerry Green and Dudley Kendall, photographers, Obed Bobbitt, structural test engineer.



HIGH SPEED "STOP"—In lower photo SD photographer Jerry Green, aided by Wilford Danvers, operator of numerically controlled milling machine, uses high speed movie camera to photograph actual drilling operation. His film is being shown in upper picture, giving slow motion view of high speed action. (This still photo is remarkable in itself, for this is actual image on screen. SD Lensman Pete Autio made it, with 1/2 minute exposure.)



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SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA



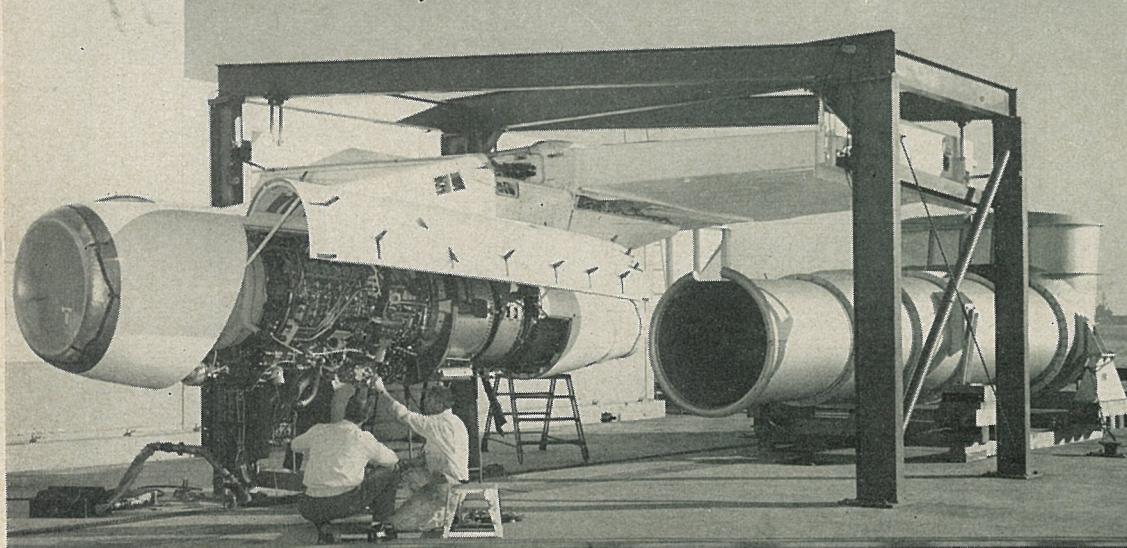
Astronautics

EDITION

(Serving Astronautics Division of Convair)

Astro news office, Bldg. 2, new plant, ext. 1154.

DAINGERFIELD AND FORT WORTH, TEXAS



CHECK-OUT—W. G. Michael of SD thermodynamics lab and L. D. Emerson (Dept. 31) adjust connections of General Electric CJ-805-3 engine to be used to power Convair 880 jet transports. Engine is now undergoing tests at SD test site at seaplane ramp. At right is huge suppressor to deflect exhaust blast.

Astro Adopts Novel Coin Tossing Idea to Raise Funds For Needy

Convair Astronautics' reception center reflection pool is rapidly taking on a new sparkle this week, a shine of Christmas.

The sparkle is from coins, hundreds of which have been tossed into the pool with the best Christmas wishes from Astro personnel. More, doubtless, will follow.

Astronautics formulated this unique method of collecting money for needy families following a suggestion offered by L. W. Gordy of long range planning. Here's how it works:

Anyone who wants to assist in providing Christmas for needy San Diego families may toss as many coins as he likes into the pool. On Dec. 23 the pool will be drained and all coins collected. They will then be used to purchase gifts, toys and food for needy families. Many departments are setting up collection containers in their own area with an eye to dumping contents at one time. Those wishing to contribute folding money may turn it in at employee services, Bldg. 8.

Each department is being asked to appoint a representative to assist in distributing money collected. A full report will be made following Christmas as to disbursements.

Astro hopes that this plan for overall collections will be made in lieu of normal practices of adopting needy families.

Naturally, every effort is being made to care for Astro's own employees first. Any employee knowing of needy Astro cases is asked to contact employee services, Astro ext. 1111.

Astro employees in support engineering (Depts. 322, 321, 320, 305) have devised plans for a "Long-Green Carpet" to assist needy families during the coming season.

The Long-Green refers to money the employees, all working at Mallen Bldg. or Barnard School, will contribute to assist

needy families.

HyDee Small is general chairman. Others handling special chores include Isabel Buechler, Bill Williams, Charles Nungezer, Doris Wells, Hal Snow, Barbara Montgomery, Glen Southerland, Florence Castrey, Bill Ritter, P. M. Elroad, and J. F. Callahan.

A joint venture of Convair Astronautics Employees' Con-Trib-Club and the Salvation Army will see that at least 100 needy youngsters in the San Diego area are cared for this Christmas.

The Salvation Army has sought a group to provide clothing for 100 children of school and preschool age.

Astronautics Con-Trib-Club earmarked \$2,500 for this purpose.

The CRA Women's Council and a group of Convair wives have volunteered to assist by fitting the youngsters for clothing, helping buy the clothes, then wrapping them as gifts.

(Continued on Page 2)



WISHING — Joni Williams (Dept. 120, Astro) drops coins into Astro's indoor pool which will be used in unique Xmas fund-gathering plan.

Angel Chorus Will Sing Out Again This Xmas at SD Bldg. 1 Entrance

Convair SD's angel chorus will sing out next week to herald the Yuletide season from its choir loft over the Bldg. 1 lobby at Plant 1.

Last year's animated Christmas display with its strains of high-fidelity organ music attracted so much attention that it will be erected again during this year's holiday time.

Decorations center around a lively organist pumping a realistic pipe organ with chorus, in

colorful robes, spotlighted high on the front of the main lobby entrance facing Pacific Highway.

The chorus, which has been enlarged this year, and organ are being spruced up in the plant's wood mill and paint shop and will be raised into position by plant engineering about Dec. 15.

The novel display was designed by A. R. Thompson of service publications in cooperation with SD community and public relations department.

First 880 Jet Engines Tested

Performance of the first set of General Electric power plants to go on the Convair 880 jet transport has proved more than satisfactory following preliminary check-out tests at the SD thermodynamics laboratory.

The four engines, delivered to final assembly a little over a week ago for installation on plane No. 1, came through their bare engine functional tests at the seaplane ramp site with flying colors, said engineers in charge.

"We found that these first production CJ-805-3s performed satisfactorily in all respects," said R. J. Reich, engineer in charge of the team working on the tests under J. R. Thayer, assistant group engineer, and W. L. Dittmann, chief of thermodynamics lab.

Others directly connected with the project are A. C. Durson and W. G. Michael. A crew of ten from experimental factory (Dept. 31) is preparing the test engines for operation, assembling the units, installing instrumentation and connecting the ducting and control systems.

Performance calibration check-outs will be made at the ramp test site on engines to go on the first three production 880s to determine if thrust, fuel and air flow, and exhaust temperatures are up to specifications.

Second set of four engines will finish the test cycle and go to plane No. 3 this week. The second 880, slated for structural tests at the ramp, will be equipped with dummy engines made of steel and weighted with lead to simulate correct engine weight during testing.

Complete installed performance check-outs are now under way on an 880 engine enclosed in its pod and attached to a stub wing at the propulsion system test stand. Tests, which will stretch over a period of several months, will check compatibility and functional operation of all systems.

Flight safety check-outs of fire detection and extinguishing systems are to be completed before the first plane takes to the air in January.

Component and structural temperatures will be checked to see that there is no possibility of

(Continued on Page 2)

Convairiety Alters Publication Date

Because of the close proximity of the Christmas holiday, Convairiety will publish next on Tuesday, Dec. 23, rather than the normally scheduled Wednesday, Dec. 24.

Monday Will See Roll-Out of No. 1 880 at San Diego

Roll-out of the first Convair 880 jet transport from final assembly next Monday (Dec. 15) will be observed in an hour-long ceremony at the west side of Bldg. 3, SD Plant 1. B. F. Coggan, division manager and Convair vice president, announced.

The program will be opened by Coggan at 8:30 a.m. with the introduction of official guests, followed by a talk by Mayor Charles Dail of San Diego.

J. V. Naish, Convair's president, will address the group on "World's Fastest Airliner" just before the huge plane is rolled out of Bldg. 3 at 9 a.m.

After the first completed Convair 880 is wheeled out into daylight it will be dedicated to commercial travel by hostesses of Convair's customer airlines. Represented will be TWA, Delta Air Lines, Aerovias of Brazil, Transcontinental of Argentina, American Airlines, SAS, Swissair, and Capital Airlines.

On hand to see Convair's first jet transport turned over to field operations will be a contingent of Convair SD customer representatives, civic leaders and businessmen, subcontractors assisting the 880 program, and aviation editors. The observance will be covered by press, radio, and television.

The first plane is slated to go into flight tests the last of January, 1959, with first deliveries to customers set for 1960.

Direct-Dial Phone Service in Effect

A new direct-dialing service between Convair SD Plant 1 and Astronautics plant on Kearny Mesa went into effect Monday (Dec. 8).

San Diego phone users now reach Astro numbers by dialing the prefix 84 and the extension. At the other end of the line, Astronautics people dial the prefix 5 to get connection with the San Diego plant.

Nerves Steady As Atlas Hits 'Pickle Barrel'

Convair Astronautics passed an important milestone late last month when an Atlas ICBM was fired "all-the-way" over the Atlantic Missile Range.

The flight, originating at the Air Force Missile Test Center in Florida, was over a 5,500 (6,325 statute) mile course. Impact was off the coast of South Africa in what the Air Force calls a "predetermined impact area." Misslemen say "in the pickle barrel."

It marked the first occasion in which the Atlas covered its full design range and was this nation's first ballistic missile to cover intercontinental span.

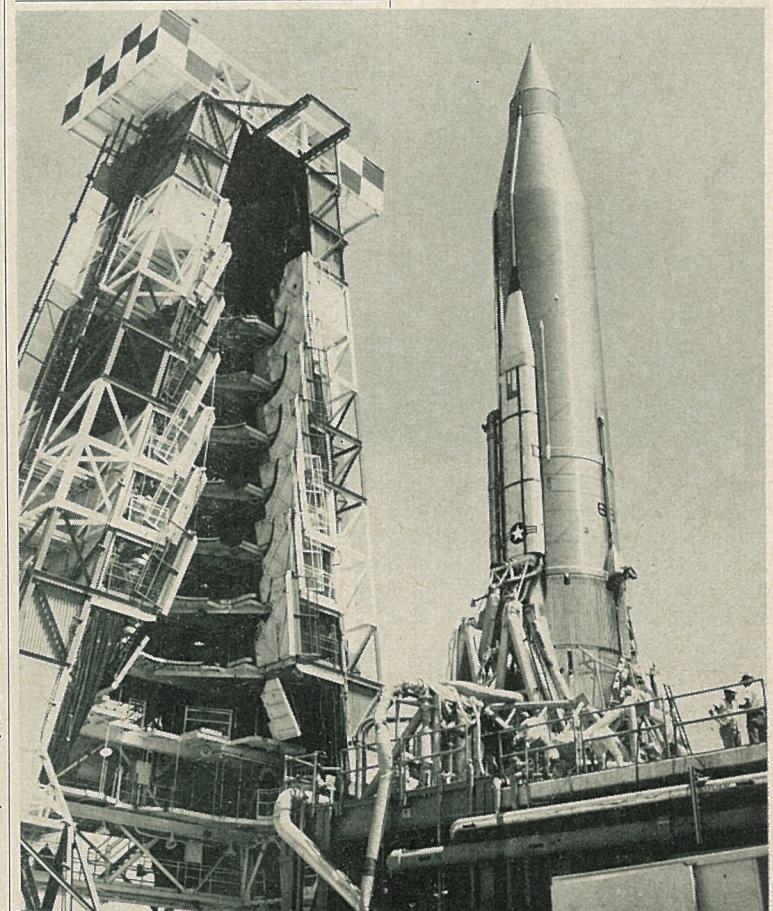
Astronautics forces at AFMTC launched the missile at 9:27 p.m. (EST), Nov. 28. It blasted off from Complex 14, one of several complexes operated for test purposes by Astro. Test conductor was Robert C. Shotwell. Shotwell is now Astro's "senior" test conductor at AFMTC. He has fired five Atlas ICBMs. Only Tommie Zannes, now assigned to MSTS, has equaled this number.

Win R. Cady, senior communication specialist for Astro, was one of the few "outsiders" in Florida for the test. He visited the blockhouse just before the final hour of countdown.

"Everyone was aware of the importance of the test," Cady said, "but there were no nerves showing. Just a calm business-like attention to duties."

Ironically, the men of Complex

(Continued on Page 2)



PEACEFUL POSE—Mighty Atlas makes picturesque subject as it stands majestically outside gantry tower at launching site in Florida. Missile similar to this one made first full-course flight there late last month.

SD Engineering Administration Moving Into New Quarters Soon

Engineering administration offices will move this week to permanent location on the third floor of Bldg. 5, Convair SD Plant 1, according to present plans.

R. L. Bayless, SD chief engineer, will occupy new offices in the extreme northeast corner of the newly-remodeled section.

Adjacent offices along the north and east walls will be assigned to assistant chief engineers R. R. Hoover, W. W. Fox, Adolph Burstein and P. M. Prophett; R. P. White, chief technical engineer; G. E. Putness, chief of engineering test flight; T. A. Billings, chief administrative engineer; and E. D. Shannon, engineering staff specialist.

Moving into the same area will be about 300 engineering personnel of the dynamics, thermodynamics, hydrodynamics, special planning, procurement, and subcontract groups.

Also slated for moves this weekend are 180 engineering people of structures, weights, release, personnel assignment, and other smaller groups. They will take up quarters in the second floor annex of Bldg. 5.

These two shifts, together with last week's move of 200 personnel to the northeast section of the second floor, will clear the large area in the southeast corner of Bldg. 5's third floor. The cleared area will be turned over to the contractor on Dec. 22 for remodeling which will extend into next March.

Military relations, involving about 27 persons, will make the

Pre-Christmas Party Included in Plans

(Continued from Page 1)

Present planning calls for a pre-Christmas party at the Astro cafeteria at noon Dec. 20 with The Prophet Co. and its employees supplying the food and a giant tree. At that time the youngsters will enjoy a special dinner, then receive the clothing. If sufficient money remains, each family will receive a food basket or food purchase certificate for use later.

Some departments and groups have indicated they would like to assist in the project. Others say they would like to add gifts of toys. Employee services office is coordinating the program.

move from Bldg. 1 tomorrow (Dec. 11). Their headquarters will now be in the northeast corner of Bldg. 5, second floor, just right of the entrance lobby.

Training group also will be located in the new area on the second floor.

The entrance to Bldg. 5 from the overpass and the newly-widened staircase was due to be opened to traffic again this week. Finish-up work will continue while the stairway leading from the second to third floor is put into use.

Work is progressing on the installation of air conditioning and heating equipment for Bldgs. 5 and 51. Space has been cleared in the northwest section of experimental factory's high bay area for a chiller mezzanine to hold air conditioning units. A pile driver will go into action next week to start ground work for erection of reinforcements to support the 30x60-ft. mezzanine.

Fans for the air conditioning and heating system are now being hoisted into a second mezzanine recently built across the main part of the high bay area.

Rose Canyon to Stage Variety Show on Dec. 22

A variety show of home talent is the all-out effort of Rose Canyon people at Convair SD to raise money for an ambitious Christmas project.

The show, open to all Convair families, is set for Monday (Dec. 22) at 8 p.m. in the Pacific Beach Junior High School. Donations will be collected at the door.

Acts, including men and women in choral groups, pantomimes, comedians, dancers, and instrumentalists, went into rehearsal last Sunday, said Carolyn Jones (Dept. 4-0), general chairman.

All proceeds will swell the Christmas fund to provide hot lunches for needy school children in the Campo school district. Clothes, food, and toys also are being collected for families in that area. Shirley Callard (Dept. 4-0) and her committee are organizing the Christmas project for the year.



A 20-POUNDER—Joe Singletary, head chef at Astronautics, sharpens up for carving chores on Christmas turkey. Traditional Yuletide dinner will be served by all Convair cafeterias serviced by Prophet Co. on Dec. 24. Complete dinner with drink and dessert will be only \$1.

First Engines For Convair 880 Test Run on Stub Wing at Ramp

(Continued from Page 1) overheating. Temperatures of such equipment as hydraulic pump, generator, and constant speed drive are measured.

If any changes are found necessary, design engineers will recommend modifications which will be done at the thermodynamics lab. Rohr Aircraft Corp. is assembling the engine, pod, and pylon units at their Chula Vista plant, near San Diego.

Now muffling the sound of pre-flight engine check-outs at the ramp is the first set of sound suppressors, received here last month from General Sound Control, Inc.

The huge 14,000-lb. funnel-shaped portable suppressor has been positioned at the exhaust duct to direct the blast upward, reducing noise and protecting workers in the area. The intake duct unit is covered with wire

screen to prevent debris from being drawn into the engine.

Three more sets of the portable suppressors will be delivered some time this month for use in testing the first 880s at field operations location north of Bldg. 4, Plant 1. The first set will remain at the ramp test site at least until next spring.

When they are located permanently at field operations, suppressors will be positioned on special trailers designed by plant engineering.

Honer Named New SD Asst. Chief Engineer

R. E. Honer has been named to head up an integrated electronics section of engineering at Convair SD, announced B. F. Coggan, division manager and Convair vice president.

Honer was appointed assistant chief engineer-electronics, reporting to R. L. Bayless, chief engineer, effective Nov. 25.

The electronics program will be designed to increase SD's activities in the electronics field and to continue its primary function in support of SD weapon systems. Honer's appointment is the initial step in setting up a production program for electronics components.

A specialist in electronics and microwave systems, Honer had been chief electronics engineer at SD since July, 1957. He joined Convair SD as a design specialist in 1953 and was appointed senior electronics group engineer in 1956.

A native of South Bend, Ind., Honer holds a BS degree from Purdue University and a master's degree from Georgia Institute of Technology. He served as radar officer in the U.S. Navy during World War II.

Before coming to Convair he had worked in color television research for the Zenith Radio Corp. and in research and development at Georgia Tech.

Pecan Park Pecans On Sale at Store

Home-grown pecans from CRA's Pecan Park are being offered Convair SD employees this week through employee services, Plant 1 or 2, or the gift shop at the Employees' Store on Pacific Highway.

Nuts are packed in two or three-lb. packages and sell for 50 cents a pound while they last. Proceeds will revert to Pecan Park's operating expenses.

Cafeterias Slate \$1 Turkey Dinner

All Convair cafeterias serviced by The Prophet Co. will feature a traditional Christmas dinner on Dec. 24, according to W. E. Rickman, Prophet's manager for all Convair operations.

The price will be \$1.

Included will be a salad, turkey and dressing, vegetables, cranberry sauce, bread and butter, a drink and a traditional dessert.

Dinners will be served at all cafeterias on both first and second shift.

Atlas Missile Hits Bull's-eye

(Continued from Page 1) 14 had to depend upon others to describe the flight to them. Their television cameras "saw" the missile leave the launcher, and that was all. (The cameras are not built to swivel with the missile.) The blockhouse received a telephoned "blow-by-blow" account from observers several miles away. Commentator was B. G. MacNabb, Astro's manager at AFMTC.

Cady witnessed the test from about five miles away on Cape Canaveral. With him were 15 newsmen and photographers who watched from a special platform.

"At first the noise dominated everything," Cady said. "Then it lessened and we tracked the exhaust flames and a thin vapor trail for several minutes. Then the engines burned out and there was nothing."

"Everyone wore a wide grin. Newsmen grabbed telephones and began to dictate stories. Photographers packed up quickly and boarded a waiting bus."

The following morning the Air Force issued additional information from Washington which used terms such as "significant," "successful," etc.

Many comments followed.

J. V. Naish, Convair president, pointed out that there are no fundamental question marks left in the Atlas program.

"This flight demonstrated range capabilities," Naish said. "Previous flights have proved soundness of the Atlas design."

Naish lauded Astro personnel for their work on the Atlas, adding, "I am confident that continued teamwork will bring Convair and the Atlas even greater success."

J. R. Dempsey, Astro manager, also congratulated his "team," saying: "Much remains to be done, but I know that you are as proud as I in seeing the Atlas demonstrate its full-range capabilities."

While this was the first full-range flight of the Atlas, it was not the first test conducted with missiles with three-engine clusters. Four others have been successfully fired at shorter ranges over the past months.

Impromptu celebrating by Complex 14 men followed the completion of assigned chores. They gathered at an off-base location after turning the flight data over to the "80-Hour Club." This is a group of men and women who take the miles of machine-gathered data into tow for processing. Their task has just begun.

And on other Cape Canaveral Atlas complexes, work crews resumed their work of preparing other "birds" for later flights.

Special Citizenship Class in Progress

Foreign-born persons at Convair SD, pointing toward naturalization as American citizens, are eligible to enter a citizenship class designed especially for professional people.

The class is conducted Monday and Wednesday evenings, 7-9:30 p.m., at Cabrillo Elementary School, 3120 Talbot St., under the city's Adult Education program. Registration may be made at any time.

For information call CY-8468, ext. 433.

Convairity



"Got any FOREIGN road maps?"

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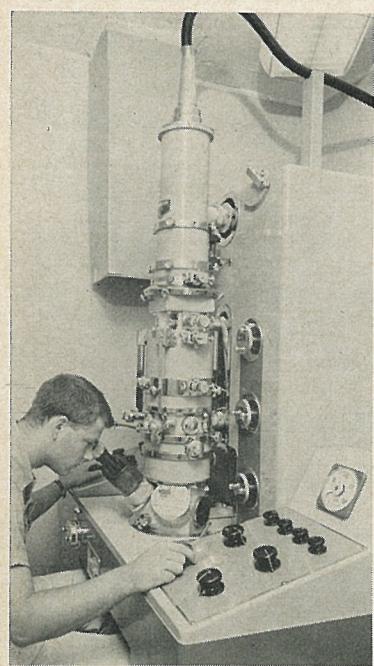
SD Editorial Offices, Building 32, Plant 1, ext. 1071. Staff: Grayce Fath, Helen Pemberton, Fred Bettinger.

Astronautics Editorial Offices, Bldg. 2, new plant, ext. 1154. Staff: Bryan Weickersheimer, news editor.

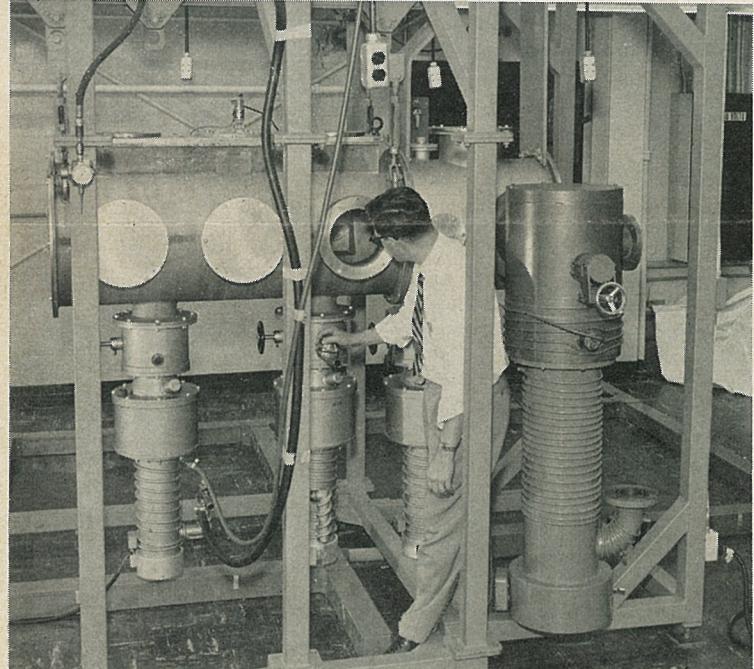
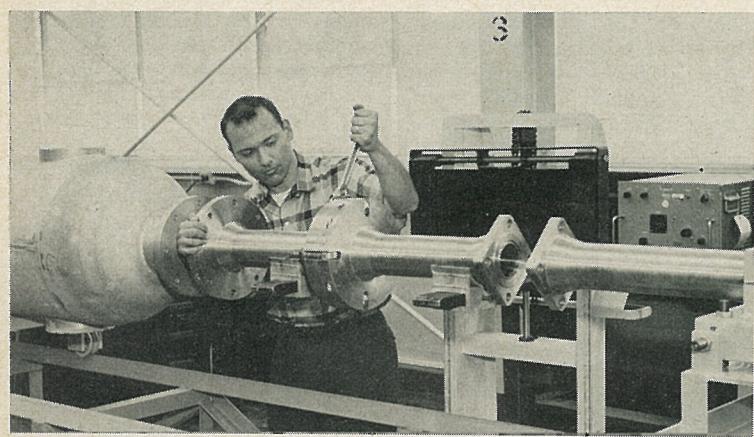
FW Editorial Offices, Col. 69C, mezz., ext. 2961. Mailing address: Convairity, Convair, Fort Worth, Texas. Telephone PErshing 8-7311. Staff: Bob Vollmer, news editor; Bobbie Sue Marr, Horace A. Baker Jr.

Pomona Editorial Offices, Room K-222, Bldg. 2, ext. 6226, mail zone 3-8. Staff: James Combs Jr., news editor; Dorothy Keller.

Antelope Valley Editorial Offices, Room 31, Bldg. 301B, Palmdale, ext. 337. Staff: Betty Lou Nash.



MICROSCOPE—John Strozier of SD physics research group peers into electron microscope that can magnify tiny objects by more than a million times.



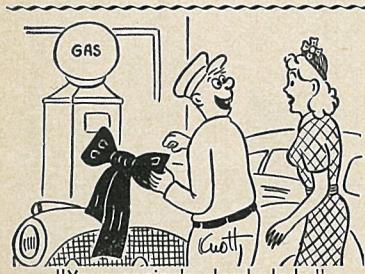
"SPACE MACHINERY"—At top, N. N. Hankin adjusts shock tube in new experimental laboratory. Below, Dr. Ray Neynaber checks machine designed to simulate shock conditions encountered in outer space.

New Security Card Issuance Starts at San Diego Division

Issuance of new security clearance cards started at Convair SD last week, said Frank G. Merritt, chief of SD industrial security.

The new-type cards, to replace present secret and top secret cards, will be standard throughout all Convair divisions. Approximately 9,000 Convair SD holders will be exchanging their

At other Convair divisions, Astronautics, with more security cards per capita than any other, already has distributed about one-third of the cards; Fort Worth issuance is about 90 per cent complete; distribution at Pomona will start sometime after the first of the year.



"Your engine's dead, lady."

Experimental Laboratory To 'Explore' Outer Space

Convair SD physics section is entering the space age in a new experimental laboratory at Plant 1.

Four specific lab groups, formed within the last few months, are setting up equipment which will make possible research into the realms of outer space, Dr. John W. Bond Jr., chief of physics at SD, explained.

Conditions of upper atmosphere can be simulated to determine what kinds of materials and which shapes can best withstand high-velocity flight through and beyond the earth's atmosphere, he said. Problems that will affect satellites and missiles of the future—such as erosion, drag, heat transfer, radiation, meteor trails, and shock fronts—will be investigated.

For instance, knowing how much light will be radiated from space vehicles constructed of different types of materials will help in setting up systems

for detection and identification of missiles while still in free flight.

The solid state physics group, headed by Dr. D. B. Medved, is assembling an ion beam in its lab area in Bldg. 51. Simulating hyper environment at altitudes up to 200 miles above the earth's surface and temperatures of up to 5000 degrees F. a "wind" of ions is generated to bombard various solid materials set up as targets.

One project of this group will be verification of the theoretical work of Dr. Lester Kraus of Convair SD on electrohydrodynamic shocks which would affect motion of satellites in outer space.

Dr. Medved's group, which has been located at the General Atomic laboratory the last few months, moved into Plant 1 the middle of last month to begin actual experimental research.

The nuclear physics group under Dr. C. W. Cook is engaged in basic research work using the General Atomic linear accelerator. Medium energy neutrons are generated to verify calculations of what makes stars burn.

Shock physics research and air ballistic studies are being set up under direction of Dr. H. F. Poppendiek.

Shock tube experiments, under N. N. Hankin, are being conducted in the new laboratory facility in Bldg. 35 (low-speed wind tunnel building) at Plant 1. Ionized gas is driven through the shock tube at extreme pressure to simulate shock waves up to Mach 20 (over 15,000 mph) with resulting high temperatures (in the 20,000-degree F. range). Spectographs are used to record density of shocks through optical windows set at intervals along the tube.

Work has begun on an aero ballistic range and .30-cal. gun to launch projectiles at Mach 15 in a controlled atmosphere for determining wake and shock patterns of hypersonic objects. C. M. Sabin will be in charge of air ballistic studies.

Molecular beam experiments under supervision of Dr. R. H. Neynaber are also under way in the Bldg. 35 lab area. Shock front conditions which would form at reentry of satellites into the earth's atmosphere may possibly be simulated in the molecular beam by means of intersecting beams of atoms and electrons.

All equipment has been designed by Convair SD scientists and built here to their specifications.

An electron microscope, recently acquired by the physics section is proving of great value in its research work. The microscope, only one south of Los Angeles and one of the first to be put into use by an aircraft company, magnifies objects by more than one million times.

The microscope also will be used to some extent for medical research for the benefit of Scripps Clinic and Scripps Institution of Oceanography through a company arrangement.

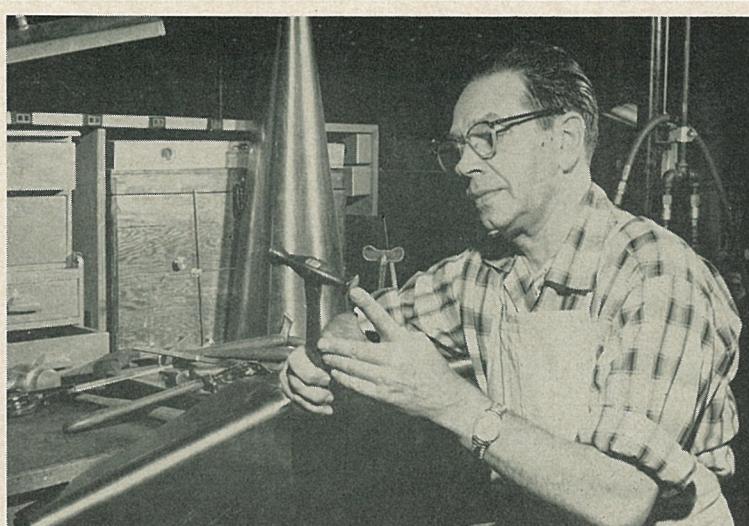
The physics section of Convair SD, which was formed as a part of engineering department about a year-and-a-half ago under direction of Dr. Bond, has expanded to include 47 scientists. About one-third of this number is now engaged in the experimental lab research work.

Results of the research work done at Convair SD is being made available to other Convair divisions in the form of published reports which are generally unclassified, said Dr. Bond.

Lt. Col. H. E. Moose Reports For Duty

A new assistant plant representative for the Air Force has reported for duty at Convair Astronautics. He is Lt. Col. Harvey E. Moose.

Lieutenant Colonel Moose relieves Maj. D. J. Yockey who is awaiting a further assignment. Air Force plant representative is Col. George E. Bostwick.



A 1916 TOOL—More than 40 years old is tool which Hugo Tilling of Astronautics is checking. He used it in silversmithing in Europe.

Once at Tiffany's

Ex-Silversmith Now Fashions Atlas Wind Tunnel Models

The hands of a master craftsman, once used to create intricate silver pieces for sale on two continents, are now helping Convair Astronautics Division in proofing products of the future.

They are those of Hugo Tilling, an instrumentation technician with Astro's engineering test support department (756).

A native of Copenhagen, Denmark, Tilling learned silversmith-



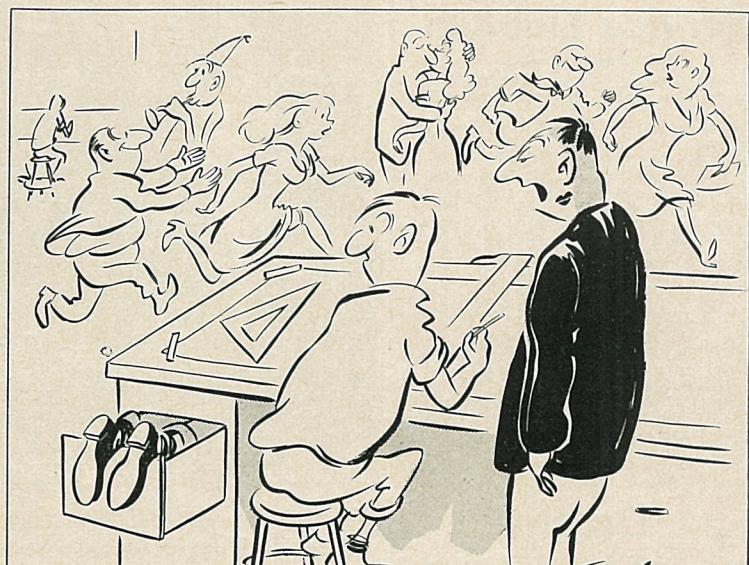
PUNCH BOWL—Photo of 1926 vintage shows Hugo Tilling working on silver punch bowl in Copenhagen.

ing from some of the world's masters. He spent five years as an apprentice, then another five as a well-known silversmith. Most of his early works still grace the tables of European families.

In 1927 Tilling migrated to New York City and a job with Tiffany and Co., a noted name in silversmithing. It was the "roaring twenties," a time of lavish entertaining and spending. Silver was very popular and Tilling was busy many hours each day.

"There is little difference in metal working," Tilling said. "Of course, stainless steel and other metals of today are harder, but with patience they can be worked into any shape."

"Tolerances are something else. With silver I had the freedom of an artist. Now I cannot vary even the smallest fraction. It is a painstaking, but fruitful calling," he added.



"I've never seen a guy as enthusiastic about Christmas as old Collins . . ."



SIGNING IN—Astro wives organize at Vandenberg AFB at first social get-together.

Astro Wives Meeting Draws 60 Members

Some 60 wives of Astronautics employees at Vandenberg AFB attended the initial social gathering of the Astro Wives Club late last month at the home of Mrs. D. L. Smythe.

Discussions at the meeting centered around various types of meetings being considered for the future. The club is open to all wives of Astro employees in the area.

W. H. Dorrance Talks On Space Flights

W. H. Dorrance, assistant to Convair's director of scientific research, was a featured speaker at the Nov. 13 meeting of the American Meteorological Society in San Diego. He discussed "Atmospheric Entry Problems and Space Flight."

The society is open to all Convair employees. Regular meetings are held the second Wednesday of each month at San Diego State College. Information is available through Astro's Ronald W. Grant at ext. 835.

Log Book Entries

Promotions

ASTRONAUTICS

Promotions and transfers to or within supervision effective Nov. 24:

Dept. 214-2, Stores & Traffic: To shipping asst. foreman, W. F. Cogan.

Dept. 270-1, Quality Control: To inspection supervisor Gr. V, E. G. Callard.

Dept. 300-0, Product Support Administration: To GFE asst. supervisor, W. W. Welton Jr.

Dept. 322-3, Support Engineering: To support publications asst. supervisor, R. B. Hoddinott, D. W. Rogers.

Dept. 342-0, Support Center Quality Control: To inspection asst. supervisor Gr. V, C. A. Nichols.

Dept. 350-0, Product Support Base Activation: To chief of activation support, S. Chavez.

Dept. 452-0, Tool & Die: To asst. foreman Gr. V, J. Kernoski.

Dept. 510-0, Chief Project Engineer: To project engineer, P. E. Cogburn.

Dept. 579-5, Field Test Adm. & Support: To asst. flight test group engineer, R. J. Blake.

Dept. 731-0, Machine Shop: To foreman Gr. V, R. E. Schmieder.

Dept. 732-0, Sheet Metal: To asst. foreman Gr. III, W. M. Kain.

Dept. 758, Major Assembly: To foreman Gr. III, F. P. Vining. To asst. foreman Gr. III, V. A. Bentley, G. J. Leggett.

Dept. 773, Missile Checkup & Acceptance: To asst. foreman Gr. V, J. V. Neal.

Dept. 775, Trainer Assembly: To asst. foreman Gr. III, R. A. Jacobs.

Dept. 571-3, Operations Support: To foreman Gr. V, J. V. Hurley. To asst. foreman Gr. V, R. D. Beasley, C. Mullins.

VANDENBERG AFB

Dept. 576, Convair Operations: To design group engineer, W. A. Reinman.

To asst. foreman Gr. V, G. F. Maclean.

Service Emblems

ASTRONAUTICS

The following service emblems are due during the period Dec. 1 through Dec. 15:

Twenty-year: Dept. 500-0, W. W. Withee.

Fifteen-year: Dept. 270-0, Elizabeth W. Wright; Dept. 280-3, Fred A. Baugh; Dept. 545-7, Harry Weimer; Dept. 573-3, J. E. Bryans Jr.

Ten-year: Dept. 191-0, Mae S. Kilbourne; Dept. 573-1, C. D. Taylor; Dept. 771-0, W. R. Grosse.

Births

ASTRONAUTICS

GOLDANSKY—Son, Ephraim, 6 lbs., 14 oz., born Nov. 28 to Mr. and Mrs. A. R. Goldansky, Dept. 310.

HOOFARD—Son, Ronald Clyde, 7 lbs., 6 1/2 oz., born Nov. 10 to Mr. and Mrs. W. C. Hoofard, Dept. 771.

STATON—Son, Charles Edwin, 6 lbs., 8 oz., born Nov. 19 to Mr. and Mrs. John E. Staton, Dept. 532-6.

Deaths

ASTRONAUTICS

BIGWOOD—Robert Earl, Dept. 451. Died Nov. 25. Survived by wife, Ruth; son, Richard; daughter, Eileen.

NELSON—Roy A., Dept. 220-1. Died Nov. 27. Survived by wife, Olive, and daughter, Sandra.

SD Store Open For Astro

A special invitation to Astronautics employees to take advantage of special low prices on gifts, toys and Christmas trees at the Employees' Store across from Plant 1, San Diego Division, has been extended.

W. E. Rickman, store manager, said that special Christmas merchandise is now in stock in the store which has been expanded for the season. Included are appliances, watches, jewelry and a wide assortment of gift items. Of particular interest to many will be the toy section, featuring all known brands.

Prices range up to 50 per cent below normal retail prices.

Christmas trees are expected to arrive at the store by mid-December and will be available at a big discount.

The store is now open from 8 a.m. until 9 p.m. through the week and from 9 a.m. to 5 p.m. on Saturdays.

Next Program of Club To Be Entertainment

Entertainment will be the main order of business Dec. 17 when the Convair Astronautics Management Club gathers in the Caribbean Room of the El Cortez Hotel.

There will be no featured speaker and business will be held to a minimum. Sponsoring departments are contracts and long range planning.

Heading the program will be a professional act known as "West and Maza." Featured will be the "Chanty Men," a 19-man U. S. Navy chorus from the Amphibious Base. Playing during the dinner hour and also entertaining will be the "Deacons," a three-man musical combo.

Tickets are now on sale through all regular club outlets.

Vandenberg Golfers Compete in Sweeps

Fred Pratt, Dan Darrow, Bob Daly and Frank Harbin were flight winners in a Nov. 23 golf sweepstakes staged by Astro personnel at Vandenberg AFB.

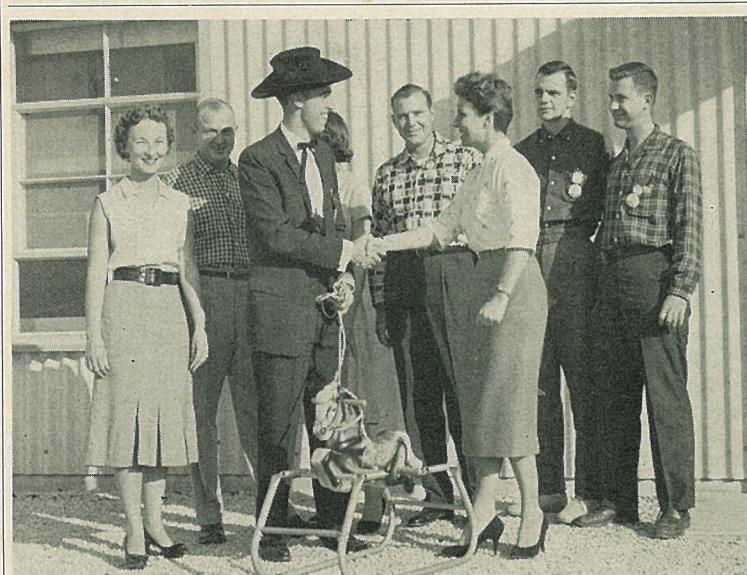
Runners-up in the four handicap flights were T. B. Kennedy, N. Menard, G. Taylor and Jack Jones.

The affair was staged at the Alisal Country Club, Solvang. Turkeys went to the low net and runner-up winners in each flight.

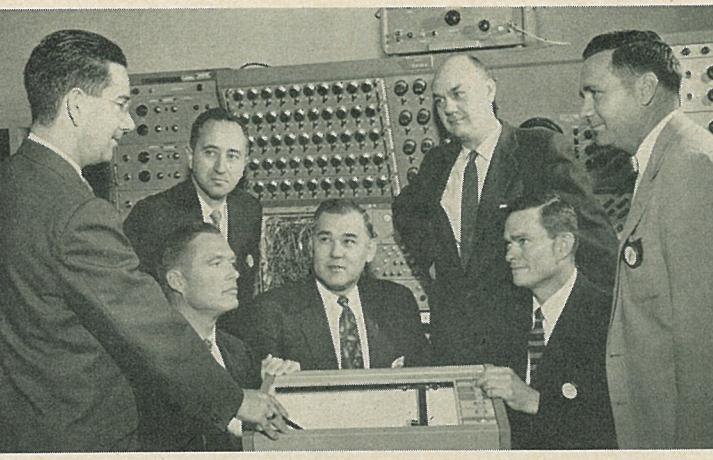
Art Club Will Wait For Clubhouses

Astro Art Club members have decided to curtail all activities pending completion of two clubhouses in the Astro CRA area, Bob Craft, CRA representative, reports.

Winners of Thanksgiving turkeys were Rossi Wade of Dept. 322-7 and Carl Crone of Dept. 578-1. They won in a special drawing.



GALLANT CHARGER—Astro personnel at AFMTC in Florida get big kick out of western costume always worn on date of test firing by Curt Johnson, test conductor. He calls them his "lucky clothes." Associates presented him with this rocking horse to complete rig. Barbara Metz, runner-up in recent Miss Satellite contest, makes presentation.



STUDENTS NOW—Six Air Force officers assigned to Astronautics in training-with-industry programs lend an ear to W. W. Varner, left, who heads Astro's computer lab. Seated, left to right, are: Capt. John B. Chickering, Maj. James A. Povalski and Col. Robert W. Hoffman. Standing, same order, Maj. Irving Abel, Lt. Col. Robert W. Yundt and Capt. Edward J. D'Arcy.

'Training in Industry' Program Brings AF Officers to Astro

Six Air Force officers, all graduate engineers, are currently assigned to Convair Astronautics as "students" in the Air Force Institute of Technology "training-with-industry" program.

Although each is assigned to one of two specific programs, their duty is essentially the same. That is, each will spend some time with all major functions of Astro, learning procedures, policies, etc. In addition, they will visit off-site Astro operations.

Their training programs are being administered through the training section of industrial relations department.

Four of these officers, Col. Robert W. Hoffman, Lt. Col. Robert W. Yundt, Maj. Irving Abel and Maj. James A. Povalski, are taking part in a new Institute course. It is called "Astronautical and Space Vehicle Programs, Project Management."

These officers will wind up a nine-month course at Astro in June. They are devoting extra time to Astro functions in these subjects and will also visit other contractors engaged in ballistic missile and space vehicle programs.

Colonel Hoffman was last assigned to the Pentagon as research administrator on the

Coiners Will Meet At Astro Cafeteria

The Astronautics Coiners, now boasting a new slate of officers, have set a regular meeting for 7:30 p.m. Dec. 17 at the Astro cafeteria.

At the group's November meeting the following officers were named: R. S. Toy (Dept. 573), president; Vic Alsieri (Dept. 182), vice president; Esperance Talmage (Dept. 181), treasurer; and Ursula Garside (Dept. 182), secretary.

A special drawing is planned for the December meeting with a Christmas turkey and other door prizes to be presented. On the business agenda will be various items associated with operation.

Convair Golfers To Vie for Hams

Participants in the Convair Golf Club Christmas sweeps Dec. 20 and 21 at the Singing Hills course will be vying for 12 prize hams.

They will be awarded low gross winner, low net winner and runner-up in each of four flights. Members should contact Alma, ext. 218, Plant 2, for starting times.

Male Chorus Starts Membership Drive

A concentrated drive to make the CRA All-Male Chorus at Convair Astronautics one of the largest of its kind in the San Diego area is now under way.

More than 20 report for practice sessions regularly each Monday at 7:30 p.m. at the Astro executive dining room. They would like to have some 80 others join them. No experience necessary, just a love of music.

Meanwhile, plans are being made for the chorus to appear before church or civic groups during the coming Yuletide season. Ray Mendoza at ext. 1111 will discuss such engagements.

100 Cars Take Part In 'Gobbler Rallye'

One of the largest sports car events ever staged in the San Diego area came off Nov. 30 when 100 cars bearing 225 persons gathered for an Astro Sports Car "Gobbler Rallye."

The affair was a fun-type "poker" event aimed at family participation. It covered three hours of touring some 75 miles of scenic back country roads.

E. S. Penick (Dept. 510) was top "poker" winner. Walter Fenning (Dept. 573) finished second and Frank Bizzak (Dept. 595), third.

Feminine Singers Organize at Astro

Convair Astronautics is in the process of forming an all-women's choral group to meet at 8 p.m. each Monday night in the executive dining room.

Actually, the plan is two-fold. In addition to having a women's group, plans are being made to have the women sing with a similar male chorus on special occasions. However, each group will hold separate rehearsals.

Those interested are invited to attend.

Skiers to Practice Dec. 14 in SD Park

Astro snow skiers have set two events prior to a planned New Year's ski trip.

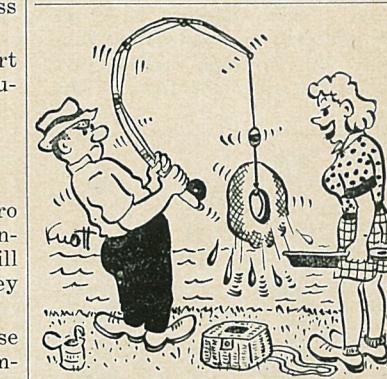
On Dec. 14 a "dry land" instruction session will be held for beginners in Balboa Park. Call Lillian Pottore, ext. 1163, for details.

On Dec. 16 Astro will join with San Diego skiers for a dinner meeting at Fisherman's Wharf. Call Bill Witzell, ext. 1083, or Bob Kent, ext. 1731, for details.

Bowlers to Launch Turkey Competition

Astro bowlers this week launched a two-week competition for Christmas turkeys.

Regular team members will vie for turkeys this week. Substitutes will roll next week. Handicap for this event is two-thirds of 200, based on a three-game series. Bowlers who have rolled nine games this year are eligible.



"Well it looks like ham and eggs after all."

CRA Sports & Recreation Convairity

Group Reservation Plan Adopted as Convenience To Guests at CRA Dance

Astronautics CRA has set up a special group reservation plan to enable "parties" of 30 and even more to sit together during the forthcoming Astro CRA Christmas dance.

The Dec. 20 affair is set for the Caribbean Room of the El Cortez Hotel from 8:30 until 1:30 p.m.

Many groups have asked if they could reserve a table or tables for departments or sections. Some organizations within CRA (like bowling, golf, etc.) are planning to get together for the dance.

Toward this end CRA has made the following arrangements: Bunny Ingraham at ext. 1111 will handle all reservations;

Perfect Score Wins On Moving Target

Bill Bacon of Dept. 130-1 "bagged" a Thanksgiving turkey with a perfect score on a moving target, while Roy Main, Dept. 401, won a luck event staged Nov. 23 by the Astro Pistol Club.

Bill Geopfarth (Dept. 772) won the .22 Police event master class. The expert class went to Bob Raymond (Dept. 130-1), while Ralph Crosley of the Air Force edged Ed Maiers (Dept. 573-3) by a single point in the sharpshooter class. Joe Miller (Dept. 771) grabbed marksmen honors.

Russ Oliver won the short National center fire match, finishing ahead of Geopfarth and Raymond.

* * *

Astro Pistol Club members will vie for Christmas turkeys Sunday (Dec. 14) when they gather for their regular event at the San Diego Police Range.

Turkeys will go to the top marksmen, according to Commissioner Bill Geopfarth.

Astro Riding Club Plans Desert Trip

Members of the Astro Riding Club will hold a regular business session at 7:30 p.m. Dec. 16 in the executive dining room.

Under discussion will be a desert trail ride planned for shortly after the first of the year, plus various shows for the coming season.

All Astro families interested in riding activities are invited to attend, according to F. W. Augustine, CRA commissioner.



OFF AND SKIMMING—Astronautics water skiers have started full schedule of activities. At top two skiers take off behind recently purchased Chris Craft. Group gathers at Gleason Point, Mission Bay, each Sunday at 10 a.m. It is open to all Astro families. Photos by Larry Tuttle, Astrolens.



ON THE LINE—Convair and Rohr bowmen line up at target range.

Most Bowlers Take Holiday

With the exception of one league (Monday 770 scratch), Convair Astro bowlers will take a two-week "vacation" from activities during the weeks of Christmas and New Year's, according to Commissioners Jack Boyle and Willard Brassell.

Some outstanding scores have been noted in recent action. Lloyd Carlson turned in a 269 game to pace his Cue Balls to a 967 team game. Roy Potter shot a 243 game, while Ralph Low turned in a 241 performance. All are members of the Monday 775 league which is turning in averages closer to 850 than 775.

The Tuesday 625 mixed loop is trailing the Gutter Dusters, while the Flying Astros lead the 750 mixed loop. The Lane Lovers hold the edge in the 700 mixed league. The Astro Nuts pace the High Ball loop with the Computing team ahead in the 700 mixed.

Thursday night action finds the Sad Six leading the 750 men's handicap, the Stagers ahead in the 625 mixed, the Short Circuits leading the 650 mixed and the Astro Nuts ahead in the 750 league.

The Sparklettes and Cheese Eaters are fighting it out for the leadership in the Friday night Product Support league.

Physical Culturist Club Names Officers

Homer Williams has been named president of the Astro Physical Culturists' group. Other officers are Joe Miller, vice president; Harold Miller, secretary, and Bob Weaver, treasurer.

Next meeting will be Jan. 6. The group expects to have gym equipment available for use shortly after the first of the year.

Individuals in charge of smaller groups will determine how many seats are needed, collect ticket money and present it to Mrs. Ingraham who will assign them a table and issue tickets.

In keeping with CRA's policy of low cost entertainment for all employees, all prices at the dance will be held to a minimum. Tickets will sell for only \$1.50 each. Refreshments will be served at bargain rates, etc.

Grady Howard and his orchestra will play for dancing.

"We feel we have the best dance floor, best orchestra and certainly the best night of the year," said Willard Brassell, dance chairman.

Tickets are now available through CRA in employee services office, Bldg. 8. They will be offered on a first-come, first-served basis until the 600 available table spaces are sold.

Divers Compete Off La Jolla

Clear water and fine weather greeted more than a dozen Astro Divers who turned out Nov. 23 for a scavenger dive off La Jolla.

Competition involved bringing up various items from the depths with points scored for each. Turkeys were given as prizes. First place ended in a three-way tie between Herb Boynton, Keith Kaonis and Jorge Zorrilla. Following close behind were Bob Nicholas, Phil Swanson and Joe Walker.

Following the dive, hot dogs were served.

Next Astro Divers' competition will be held Dec. 14 at Encinitas. The outcome of this spearfishing event will be instrumental in selecting an Astro team to take part in the forthcoming AAU Winter Dive.

Last regular business meeting of the Divers will be held Dec. 23 at the Astro cafeteria.

Water Skiers at Astronautics Elect Slate of Five Officers

Astronautics water skiers, equipped with a 17-foot Chris Craft boat purchased by CRA, are now in full operation, following a recent election of officers and formulation of operating

procedures.

Named to office at a Nov. 30 outing were: Dale Sturhann (Dept. 250), president; Dave White (Dept. 451), vice president; Daisey Best (Dept. 500), secretary; Charles Moore (Dept. 452), treasurer; and Lincoln Gray (Dept. 250), boat manager.

The group now meets at 10 a.m. each Sunday at Gleason Point, Mission Bay. Activities continue until 4 p.m. Normally, family groups taking part enjoy picnic lunches.

Plans for offering instruction to all ages have been completed. Several pairs of skis are available to beginners.

"This is an excellent time to learn water skiing," said Bill Johnson, CRA representative. "The bay is normally calm and less crowded than in summer."

While equipment is furnished by CRA, a token tow charge (25 cents) is made for each ride. And membership for families is desirable.

To help build up the group's roster, special family rates are now in effect. Families may take advantage for the remainder of this winter for only \$2. Then on March 31, an additional \$3 will buy membership for the next year. Those entering the group in March must pay \$5.

Information and memberships are available through Daisey Best at ext. 1980.



TEAM WINNER—Combined team of SD and Astro archers won recent shoot against Rohr team at San Diego. Competition is semi-annual.

Astro's Archery Range Shows Big Improvement

Convair Astronautics archers will hold a quarterly trophy shoot beginning at 9:30 a.m. Sunday (Dec. 14) at their vastly improved target and field range in the recreational area adjacent to the Astro plant.

The archers, represented by over 20 participating members, plus a number of occasional shooters, have been holding regular monthly shoots in the area for some months. They include archers from San Diego Division.

Shortly after the first of the year the Astro group plans to reorganize and elect its own slate of officers.

Astro's combination field and target range is one of the best around San Diego. The field layout consists of 28 targets located in a natural bush-covered area. In addition, there is a regular target range set up for competition up to 100 yards.

The Convair group meets on the second Sunday of each month at 9:30 a.m. Quarterly shoots are held and twice each year competition is arranged between Convair and Rohr bowmen.

"We are trying to build our organization on family groups," said Al Stone, archery commissioner. "Our events are set up for all ages and most include

Astro Again Needs More Teams For Basketball Leagues

Astro CRA is having a hard time trying to set up shop basketball competition this year.

At first, nine teams signed up, an uneven number for two leagues. The call went out for more. Four responded. Now Astro again has an uneven number —13.

So the call is still out—for one or three or even five more teams to take part when competition opens shortly after the first of the year.

One disappointment so far has been the failure of factory departments to put up teams. Only two, Depts. 214 and 220, are signed up from the factory. The others are from engineering.

Teams desiring to enter may contact Ray Mendoza, ext. 1111, for information.

Xmas Party Ends Astrolens' Year

The Astrolens, CRA camera group at Astronautics, closed out their 1958 activities Monday (Dec. 8) night with a Christmas party and contest.

The group will resume meetings on the second Monday of each month with the beginning of 1959. Initial meeting will be Jan. 12.

provisions for a family picnic or outing."

All Astro employees and their families are invited to take part. CRA has available a limited number of bows and arrows and qualified archers are glad to offer instructions or suggestions.

As soon as two CRA Clubhouses are available, plans call for setting up arrow-making facilities. Materials will be offered at cost.

Those interested may attend one of the shoots or call CRA, ext. 1111, for information.

Membership Drive For Golfers Set

Regular members of the Convair Golf Club are urged to renew their 1959 membership before Jan. 1, Gerry Dix, club secretary, announced. He said the annual membership drive is now in full swing and issued an invitation to newcomers to join the club.

"In addition to playing tournaments on nearly all courses in the San Diego area, the club will add variety to the competitions by including Scotch two-somes, partners' best ball, and blind bogeys," Dix said.

He asked players to contact the team captain in their area for information and '59 membership cards.

Captains are Mort Smith, ext. 651, Plant 2; Tom McCulloch, ext. 1241, Astro; Jake Moore, ext. 639, Plant 1; Jim Busby, ext. 303, Plant 2, and Jim Fair, ext. 18, Sycamore Canyon.

Astro's Baseball Nine Seeks Talent

An attempt to strengthen Convair Astronautics' winter baseball team prior to the launching of the second half of play is under way.

Astro's hardball nine lost only two games during the first half which wound up Sunday (Dec. 7). The second loss was a heart-breaking 3-2 decision dropped to the Lemon Grove Merchants. Pitcher Jerry Woods hurled a two-hit game, collecting three hits himself, only to lose.

Any baseball player with experience in college or semi-pro leagues who would like to wear Astro colors is asked to contact Ray Mendoza, ext. 1111.

ASTRO BASKETBALL ENTRY A WINNER

Astro's representative in the annual pre-season basketball tournament now under way popped into early contention with an easy 60-30 victory over Old Town Tamale No. 2 in the opening round last week.

Con-Trib-Club Membership Up, Survey Shows

Last-minute membership sign-up in Astronautics Division's Con-Trib-Club drive pushed the total well over the 95 per cent mark. San Diego Division is nearing 90 per cent with 500 cards still out in its annual roundup campaign.

At the close of its campaign last month Fort Worth Division membership in Con-Trib-Club reached 94½ per cent.

In the recent drive conducted at Astro installations in the San Diego area 9,073 out of 9,543 persons contacted signed up for Con-Trib. Membership now stands at 95.07 per cent.

Astro employees on leaves of absence or off-site assignments will be contacted when they return to work at their San Diego locations, according to Dick Mitchell, Astro drive chairman.

In San Diego's clean-up drive, 1,755 new members have been gained from the 3,823 cards sent to all non-members. Only 150 more signifying their desire to join the Con-Trib-Club would be needed to put the membership well over 90 per cent, said Keith Sears, Con-Trib secretary for SD.

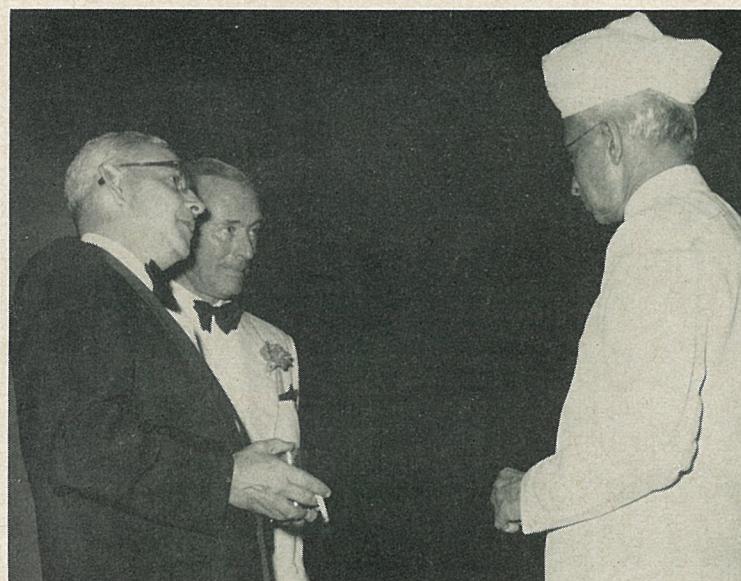
Returns from off-site bases at Palmdale, Edwards, and Holloman and late cards turned in from SD employees now on leave of absence due to vacations or illnesses may be enough to boost SD's participation over the goal.

Convair Couple Wed; First at Vandenberg

First wedding reported among Convair Astronautics personnel assigned to Vandenberg AFB took place Nov. 8 at the Methodist Church at Santa Maria.

Wed were Marie Thomassen and Henry A. Richards, both of Dept. 576-6. Following the wedding a reception was held at the home of the groom's father, Art Richards, a member of Dept. 576-3.

The newlyweds spent a two-week honeymoon at Big Bear.



IN NEW DELHI—Convair President J. V. Naish, left; General I. A. Aler, president of vast KLM airline system, center, and Dr. S. Radhakrishnan Menon, Vice President of India, chat during IATA conference in New Delhi.

Naish Finds 880 and 600 Jets Top Topic of Interest at IATA Meet

Intense interest among top airline executives in both the Convair 880 and 600 jet transports was reported by Convair President J. V. Naish following his return from a meeting of the International Air Transport Association in New Delhi, India.

During the week-long meeting Naish said he conferred with the top leaders of the major airlines of the world.

"The American Airlines order for our 600 and the more recent news that Swissair and SAS airlines have chosen the intercontinental 880 had caused quite a stir," Naish related.

"Everyone with whom I talked was intensely interested and impressed and anxious to learn all they could about our airplanes."

Naish headed a Convair sales delegation that included J. G. Zevely, Convair director of contracts and commercial sales; A. W. Abels, Convair export sales manager; K. C. Gordon, assistant manager, commercial sales, and George Prill, manager of the European office.

IATA holds its annual meeting each year in a different city.

Next year it will be in Tokyo. More and more the annual conference among airlines has become an important gathering point for top level aircraft manufacturers to confer with their opposite numbers among the airlines. In no other industry is business transacted as much on a "president-to-president" basis as in commercial aircraft.

En route to New Delhi, Naish stopped off at Athens, Greece, to confer with Olympic Airways, whose long-range requirements would be well met by the 880. On the way home he conferred with airline officials in both Tokyo and Honolulu, also on the subject of the 880.

Housekeeping Awards Go to MSTS Functions

Winners of November housekeeping awards at Convair Astronautics MSTS are administration support, headed by William McNabb, and test stand 1-1, under foreman Tony Funaro. The eight-ball award went to second floor administration, according to safety engineer M. G. Rustin.

Newly Developed Hot-Forming Tools Turn Out First SD Parts

First experimental parts of new titanium alloys turned out at Convair SD under an Air Force contract for development of new high temperature manufacturing methods have been turned over to SD engineering for testing.

Since the first of this year manufacturing development, tooling, and engineering at SD have coordinated efforts in the development of methods by which aircraft components may be produced from newly-developed titanium alloys. The new materials, which will maintain strength at high temperatures (up to 750 degrees), are being developed for use in high-speed air vehicles of the future.

Work is being conducted at Convair SD under a \$1,388,044 contract from the Air Materiel Command.

An unusual phase of the program is the development of high-temperature forming tools. Approximately a dozen hot-forming tools have been developed at Convair SD for use on conventional production equipment such as standard brake presses, stretch forms, etc. They are now in operation at SD Plant 2 forming test articles of the titanium alloys under research.

The high temperature tools operate in the 1,200-degree F. range. They are made of a type of cast iron (meehanite) which retains strength at temperatures up to 1,400 degrees F.

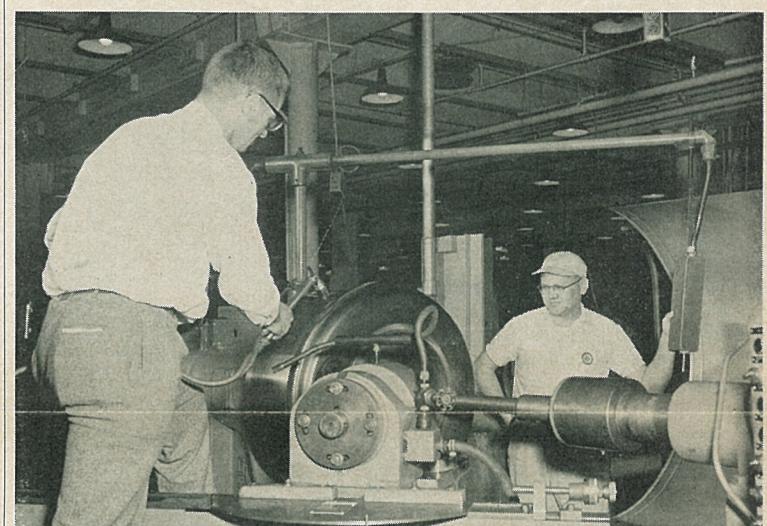
Heating systems used to obtain the over 1,000-degree temperatures are electrical cartridge heaters, resistance heating, and natural gas. A fourth method, use of quartz lamps, is under investigation.

Convair is responsible for the gathering of data on methods of applying heat to sheets of titanium alloys to form the best possible parts.

Engineering test groups will evaluate the experimental articles under various load and temperature ranges.

The hot-forming tooling method, now under development, will not only shorten tooling time, but make possible production of more satisfactory components, reducing spring-back, hand forming, and stress relieving.

Convair departments will continue the development program throughout the next year, reported F. A. Monahan, manager of manufacturing development. It is expected that additional titanium alloys will be added to the program, extending the contract into 1960.



"HOT FOOT"—Carl Stark, SD manufacturing development engineer, left, aims natural gas torch in forming titanium part on Floturn machine in Plant 1's Bldg. 1. At right is W. G. Harrison, machine operator.

Toy Injures Convair Boy's Eye; Points up Need For Xmas Care

Seven-year-old John Lee Hankins, son of Convair Pomona's James H. Hankins (Dept. 51), early this week was in Kaiser Hospital in Fontana recovering following emergency surgery on his left eye Thanksgiving Day.

Surgery was necessary after the small exposed end of a metal Halloween horn, from which the plastic mouthpiece had been removed, pierced his eye while he was playing. Doctors would not predict last week whether or not the sight of the eye could be saved, Hankins said.

"We had thrown the horn in the trash after the mouthpiece came off, but apparently one of the children discovered and retrieved it," Hankins said.

Parents purchasing Christmas presents for children were urged by Convair Pomona's safety section to use caution when selecting toys.

"While necessary for children at Christmas, they can also be dangerous," T. R. Smith, safety supervisor, said. "While there are no set rules for purchasing safe toys, we can suggest a few simple pointers."

Toys with sharp, protruding edges should be avoided. Also, electrical toys and those using or burning alcohol, kerosene and other flammable materials should not be given to small children. Electrical toys, incidentally, should be inspected to be sure that they have the approval of Underwriters' Laboratories, Inc. Since smaller children are inclined to suck and chew on toys, it is wise to avoid those which

have been covered with paints containing lead. Better grades of painted toys usually bear notices that the paint used is harmless to children.

Riding toys—tricycles, trucks and cars, etc.—should be of the proper size for the youngster concerned, and should be sturdy enough to bear his weight and designed so that they will not readily tip over.

"All toys should be inspected frequently, and those which are broken should be repaired or thrown away," Smith continued.

Payroll Deduct Up a Notch

Convair people will notice an increase of payroll deductions from their checks after the first of the year when the new tax rate upping Social Security benefits goes into effect.

After Jan. 1, 1959, employers and employees will be paying a quarter of one per cent more taxes under new provisions of the Federal Insurance Contribution Act.

The F.I.C.A. tax rate will be 2½ per cent on the first \$4,800 of gross wages. Present rate is 2¼ per cent on the first \$4,200. Tax increase will amount to an additional \$25.50 in deductions during the year.

The new measure, passed by the last Congress, provides for a 7 per cent increase in Social Security benefits for all retired workers.



FIRST AF CREW—First AF crew to maintain a B-58 is this group at Edwards AFB, where AF is phase testing the supersonic bomber. T/Sgt. Bob Taylor (second from left on front row) and Lyle Scholfield (fourth from right in front) were aboard plane when it was delivered from Convair Fort Worth to Edwards.

Hustler at Edwards Continues Testing

First B-58 to leave "home" at Fort Worth is continuing Air Force stability and control testing at Edwards AFB on the Mojave Desert.

So far, since it flew to Edwards last February, the aircraft has made 34 flights. It is expected to remain at Edwards until the latter part of January when it probably will be returned to Fort Worth for modifications.

The present flight crew is Capt. Charles C. Bock Jr., and T/Sgt. Robert E. Taylor.

Reliability Ideas Pooled as New Dynamics Panel Meets in Dayton

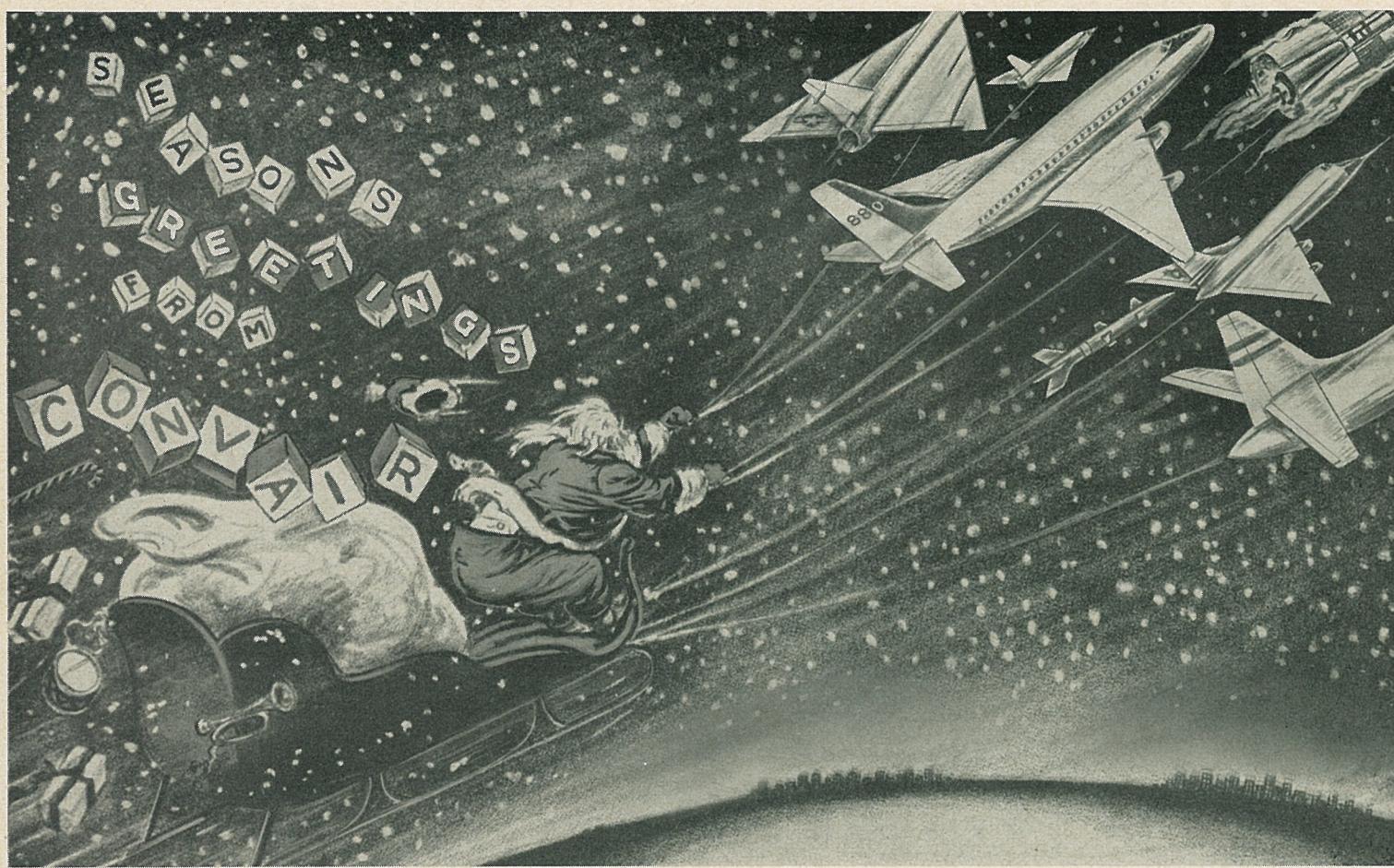
A 27-member company-wide General Dynamics Corporation reliability panel appointed recently held its first conference last month in Dayton, Ohio.

John J. Crowley, executive assistant to the senior vice president-engineering, was elected panel chairman. Vinko Dolson of Convair Fort Worth was elected vice chairman.

H. F. Eppenstein of Convair Astronautics was elected project initiation chairman, and John Holland of Stromberg-Carlson was named program chairman.

The panel was formed to pool ideas, resources and knowledge so that better General Dynamics products can be produced at less cost, according to J. Y. McClure, manager of quality control at Convair Fort Worth, who served as temporary chairman.

The one-day General Dynamics meeting came prior to a two-day annual conference of the Aircraft and Missile Division conference of the American Society for Quality Control. Some members of the reliability panel also attended the quality control conference.



Pace and Naish Send Greetings

To members of the General Dynamics family everywhere, I extend my sincere good wishes for a Joyful Christmas and a Happy and Prosperous New Year.

That not only we and our fellow citizens but others in the free world, are able to observe this holiday season in peace and security is due in great part to the products of your minds and hands. A Merry Christmas to you and all those dear to you.

Frank Pace Jr.
President, General Dynamics
Corporation.

To each and every man and woman of Convair I extend my personal wishes for a very Merry Christmas.

As for the year ahead, there always are many unknown factors at this point. However, with your continued loyal support, together I am sure we can make it a Prosperous New Year.

J. V. Naish
President, Convair Division.



Published every
other Wednesday.



Convair Division of
General Dynamics Corporation.

Convairiety

Vol. II, No. 26

Tuesday, December 23, 1958

SAN DIEGO, POMONA AND ANTELOPE VALLEY, CALIFORNIA

DAINGERFIELD AND FORT WORTH, TEXAS



UNVEILED—First Convair 880 jet transport was seen last week at San Diego in ceremonies dedicating it to future of commercial air travel. It is shown rolling out of final assembly on its way to field operations.

Engineer Week Posts Filled

More than twenty Convair men, representing General Offices, Astronautics and San Diego Divisions, have accepted important posts in conjunction with the 1959 observance of National Engineer's Week.

The observance, held across the nation, will be Feb. 22 through March 1 in San Diego.

J. R. Dempsey, Convair vice president and Astronautics manager, is general chairman. Mortimer Rosenbaum, Astro chief engineer, is general vice chairman and also a member of the city and county schools and the college committees.

E. M. Getzoff, Astro mechanical engineer, is executive secretary and Dr. P. E. Lewis, an Astro research group engineer, is vice chairman of the special projects committee.

(Continued on Page 2)

Convair Divisions Lead All Air Mfg. For Safety

Convair's four major divisions were in the first four places in the latest available standings in the National Safety Contest for aircraft manufacturers.

Convair Pomona was in first position with an accident frequency rate of .37, Convair San Diego was second with a rate of .46, Convair Astronautics was in third place with a rate of .64, and Convair Fort Worth was fourth with a rate of .70.

The accident frequency rate indicates how many accidents occurred per million manhours worked.

The contest is conducted on an annual basis, but relative standings are published each month by the National Safety Council. The standings from which the ratings above were taken were published last week and cover the first 10 months of 1958.

Convair has traditionally been one of the safest companies in the aircraft industry in which to work. In the National Safety Contest for 1957, Convair San

Diego won first place, Astronautics was second, Pomona was sixth and Fort Worth was seventh.

In the previous contest, which covered 1956, Convair Pomona ranked first, Fort Worth was eighth, and figures from Convair San Diego were not received in time to be included in the final tabulations for the contest. Astronautics did not achieve division status in time to compete in the 1956 contest.

Convair's category in the national contest is that of "complete airframe manufacturers" which includes most of the major companies of the country.

Field Operations Takes Charge of First Convair 880

A dramatic moment in the history of Convair San Diego was solemnized last week as the first Convair 880 jet transport was unveiled in all its white and gold beauty Monday morning (Dec. 15).

Over a thousand invited guests watched the doors of

"It comes off the line with its nose in the air," said B. F. Coggan, SD Division manager and Convair vice president, "and we intend to keep it that way throughout its lifetime." (Nose of the giant plane had to be elevated so that the tip of its vertical tail could clear the doorway.)

Coggan welcomed the selected group of spectators—civic, company, AF, Navy, subcontractor, and airline officials—to the event which he termed "important not only to our community and area but to the nation as a whole."

San Diego councilman Ross G. Tharp, representing Mayor Charles Dail, said that "this day is a great one in San Diego's history, marking the advent of a new era in its peace-time economic growth." He paid tribute to the dedicated leadership of Division Manager Coggan and expressed appreciation for the confidence that Convair has shown in the city.

Earl Johnson, executive vice president of General Dynamics Corporation, mother company of Convair, emphasized that the decision of Convair and General Dynamics to go ahead with the jet commercial plane program when they were already behind the "parade" (Douglas and Boeing both have jet transport planes now flying) is no longer a gamble. "We now have the finest plane in every way that can be built. It is a tribute to the plane that the best of the airlines have bought the 880 or are considering it."

"I can't tell you how many we can sell, but I will say that if you look at the forecast of traffic

(Continued on Page 2)

Atlas In Orbit

Newspapers from coast to coast last week filled their front pages with news that an Atlas missile is in orbit around the earth.

The missile was launched from Cape Canaveral last Thursday afternoon. Weighing some 100 tons on the launching pad, after firing the first and second stages peeled off and the remaining stage, estimated at about four tons, went into orbit.

The missile is circling the globe about every 100 minutes. Estimated life was set at 20 days.

Christmastime Help Offered Needy Families

The joy of giving is sweeping through Convair SD Plants 1 and 2 as generous people dig deep to help out the less fortunate at Christmastime.

Convair families in need are receiving the greatest portion of the Merry Christmas collections while destitute families recommended by the Salvation Army, children's homes and other charities are receiving their share for a brighter Yuletide.

Engineering department is turning over its entire collection of cash in a lump sum to SD employee services for apportionment among needy Convair families.

Material services departments at Rose Canyon are combining

(Continued on Page 2)

Engineer Week Posts Filled

(Continued from Page 1)

The following Astronautics men are assigned as committee members: W. P. Shine and R. R. Garrett, city and county schools committee; R. F. Smith, speakers committee; L. E. Munson and C. J. Swet, colleges committee; G. W. Oliver, speakers committee; and G. S. Oliver, radio and television committee.

Dr. J. C. Clark, technical assistant to the Convair vice president—engineering, is the chairman of the colleges committee.

Committee officers from San Diego Division include: Dr. J. W. Bond, chairman, city and county schools committee; J. J. Alkazin, chairman, publications committee; R. J. Pritchard, secretary, publications committee; and Y. Weisman, secretary, city and county schools committee.

Committee members include: Sam Lipsett, publications committee; Dr. F. C. Harshbarger, city and county schools committee; A. E. Williams, speakers committee; and C. E. Beddoes, city and county schools committee.

SD Con-Trib-Club Reports

CONVAIR EMPLOYEES CON-TRIB-CLUB CHARITY FUND

STATEMENT OF FINANCIAL CONDITION

SEPTEMBER 30, 1958

Assets	
Total assets—cash in bank	\$58,932.40
Liabilities and Surplus Funds	
Account payable—Emergency Aid Fund	\$ 2,873.50
Surplus funds—September 30, 1957	\$44,292.06
Add: excess of receipts over disbursements for the year	
ended September 30, 1958	9,782.98
Decrease in liability to Emergency Aid Fund	1,983.86
Total surplus funds	56,058.90
Total liabilities and surplus	\$58,932.40

CONVAIR EMPLOYEES CON-TRIB-CLUB CHARITY FUND

STATEMENT OF RECEIPTS AND DISBURSEMENTS

OCTOBER 1, 1957 TO SEPTEMBER 30, 1958

Receipts:	
Payroll deductions—payroll	\$485,852.78
Individual contributions	240.79
	\$486,093.57
Disbursements:	
Alamogordo United Fund, Alamogordo, New Mexico	\$ 2,500.00
Alpine Youth Center and Community Park	500.00
American Cancer Society	1,050.00
American Red Cross, San Diego	1,000.00
Antelope Valley Assn. for Retarded Children, Lancaster	1,000.00
Brevard County Heart Fund, Cocoa, Florida	250.00
Brevard Tuberculosis and Heart Assn., Cocoa, Florida	225.00
Brevard County United Appeal, East Gallie, Florida	1,570.00
Camp Fire Girls, San Diego, Calif.	2,500.00
Catholic Welfare Bureau, Pasadena, Calif.	600.00
Cerebral Palsy Foundation	2,000.00
Children's Baptist Home	600.00
City of Hope, Duarte, Calif.	1,000.00
County of San Diego	1,000.00
Crossroads Foundation	1,100.00
Encinitas Youth Recreation Center, Encinitas, Calif.	300.00
Family Service Assn.	6,020.00
Guadalupe Clinic	2,500.00
Harry Anna Crippled Children's Home, Umatilla, Fla.	165.00
Jewish Community Center	500.00
Lancaster Catholic Youth Organization, Lancaster	250.00
L.A. County Bureau of Public Assistance, N. Hollywood	600.00
L.A. County Assn. for Mental Health, Los Angeles	500.00
Los Angeles Society for Crippled Children, L.A.	1,000.00
Nat'l Foundation for Asthmatic Children, Tucson, Ariz.	750.00
Neighborhood House	3,000.00
Olive View Sanitarium, San Fernando, Calif.	500.00
Pathfinders of San Diego	1,000.00
Salvation Army	2,600.00
San Diego Bio-Medical Research Institute	10,000.00
San Diego Children's Dental Health Center	1,500.00
San Diego Children's Home	7,500.00
San Diego City Schools	505.00
San Diego County Council of Churches	1,000.00
San Diego County Epileptic Society	500.00
San Diego County Traffic Safety Council	1,000.00
San Diego County Mental Health Assn.	850.00
San Diego Society for Crippled Children	5,000.00
Sheltered Workshop	2,500.00
Travelers Aid Society	500.00
United Cerebral Palsy Foundation	2,500.00
United Fund	250,000.00
United Jewish Fund	1,500.00
Volunteers of America	1,677.44
Western States Amputee Golf Assn., West Side Recreation and Improvement Assn., Lancaster	200.00
Y.W.C.A.	500.00
Community Chests	26,595.00
Hospitals	9,700.00
Boys Clubs	3,600.00
Girls Clubs	1,000.00
Scouts	16,500.00
Y.M.C.A.'s	7,125.00
Total charitable disbursements	\$388,532.44
Transfers to Emergency Aid Fund:	
Account payable at September 30, 1957	\$ 4,857.36
From current collections	45,021.19
	49,878.55
Expenses:	
Accounting and audit	\$ 800.00
Printing check book	3.10
	803.10
Transfer to Convair Astronautics Employees Con-Trib-Club	37,096.50
	476,310.59
Excess receipts over disbursements	\$ 9,782.98
Cash balance—September 30, 1957	49,149.42
Cash balance—September 30, 1958	\$ 58,932.40

Convairity

CONVAIRITY

Tuesday, December 23, 1958

Field Operations Takes Charge Of First Jet 880 at San Diego

(Continued from Page 1) throughout the world and look at the flexibility of the 880, there is no doubt that we'll be selling this plane 10 and 15 years from now."

In introducing J. V. Naish, president of Convair, Coggan said that it was fitting that Naish should make the dedication of the first 880 "since it is under his direction that we have all worked to make this event possible."

In his opening remarks Naish drew the crowd's attention to the fact that the first 880 rolled off the line within two days of the anniversary of man's first powered flight by the Wright brothers at Kitty Hawk. "In a single lifetime man has achieved a speed from 50 miles per hour to 1500 mph manned (with the Convair-built B-58) and 15,000 mph unmanned (speed of the Convair Atlas ICBM)."

"San Diego has had a great part, perhaps more than any other one city, in this conquering of the air from the time Charles

Lindbergh built and flew from here the 'Spirit of St. Louis.'

"The first 880 joins a long line of firsts, from the first flights of the B-24 Liberators, PBY Catalinas, the jet B-36s, first vertical takeoff, the new concept of the delta wing used in the F-102s and F-106s to the day the first shrouded Atlas ICBM rolled out of the Convair SD plant on its way to Cape Canaveral.

"We at Convair have a great heritage to live up to in the 880," he continued as he pointed out the 880's relationship to Convair's well-known family of commercial planes begun with the Convair Liners 240, 340, and 440.

"The experience learned in the building of its sister ships has culminated in the 880. It will carry on their reputation for dependability, ruggedness and practicability and will prove to be as sound economically as its predecessors."

"In the 880 we have the world's fastest jet transport and the most glamorous!"

Naish concluded his dedication, "In behalf of the men who put together the 60,000-odd parts that go to make up this plane, I bring to you the exciting 880 transport," as the huge plane was rolled out of Bldg. 3 on its way to field operations for ground tests.

The ceremonies ended with hostesses from leading airlines placing emblems of their companies on the forward fuselage, dedicating it to commercial air travel.

They were escorted by Don Germeraad and John Knebel, Convair SD test pilots, who will be the first ones to take the 880 aloft in flight tests due to begin the end of January.

Visitors had only a peek inside the plane as its interior was full of 50-gallon oil drums through which water will move back and forth to simulate load-shifting during tests.

The 615-mile-an-hour medium range transport will go into service the spring of 1960 on Trans World Airlines and Delta Air Lines. Firm orders to date total 78 planes. Purchasers so far include REAL Aerovias of Brazil, Transcontinental of Argentina, Scandinavian Airlines System, and Swissair. Capital Airlines is negotiating for purchases of 880s while American Airlines has contracted for 25 of the Convair 600, sister ship to the 880.

Eight more 880s are now coming down the assembly line in Convair SD's Plant 1 with the entire production program on schedule, according to Coggan. The first completed plane was two weeks ahead of schedule.

Bank Near SD Plant To Handle '59 Tags

Convair San Diego car owners will be able to purchase 1959 license tags at the Five Points branch of the Bank of America, 1691 Hancock St., after Jan. 2.

Two windows will handle license sales until the deadline, Feb. 4. Purchasers must submit their tab cards carrying the amount due and pay by money order, cashier's check, or cash.

For the convenience of Convair people, the bank will accept applications and money from groups in one lot, and process the tags for pickup the following day.

SD Golf Fans to See Casper, Middlecoff

Golf enthusiasts at Convair SD and Astronautics will have an opportunity to see the golf greats of the country perform on films scheduled for free showings under CRA arrangements.

First all-star golf film matching Billy Casper and Cary Middlecoff will be shown Monday (Jan. 5) in the Museum of Natural History, Balboa Park, at 7:30 p.m.

The next film is scheduled Feb. 1 at the Astronautics site.



GIFT WRAPPERS—This is about one-third of volunteers on hand last week to help wrap gifts for needy youngsters. Astronautics played host to 114 youngsters last Saturday for special party.

Over 100 Youngsters Dine at Astronautics Xmas Party

Convair Astronautics opened its heart over the past weekend to provide a very special Christmas treat for 114 youngsters.

These children, from 46 needy families in the San Diego area, were invited to Astro's cafeteria last Saturday. Before they left, each had been fed, entertained and presented with a wealth of gifts.

Planning for the affair started simply, then mushroomed as many different groups came forth to assist. Astro's Employees' Con-Trib-Club started it by setting aside \$2,500 to purchase clothing for needy children through the Salvation Army.

CRA's Women's Council, working with a group of Convair wives, agreed to select clothing for the youngsters. They picked sturdy shoes, warm shirts and sweaters, pants and skirts, and socks for each. And there was still enough money to purchase a good toy for each.

Last week some 60 volunteers reported in to gift wrap more than 460 packages, tag them with names and decorate a tree.

Then on Saturday volunteers from Astro's transportation section drove cars and buses around

the city to collect the youngsters. They arrived wide-eyed at the Astro cafeteria to see a 14-foot tree, provided by Prophet Co. and decorated by CRA, loaded with gifts. Then came entertainment, games and a special dinner. Prophet Co. provided the food and its employees worked on their own time to prepare it.

Following lunch, which was presided over by 60 volunteer chaperones, Santa Claus arrived to dispense the wrapped gifts. Cafeteria suppliers added a stocking for each loaded with fruits, nuts and candy. Davidson Brothers also provided a special favor and tooling employees were on hand with a gift for each.

Engineers Collect Gifts For Orphanage

Over 300 design engineers and their guests took part in a Christmas party staged Dec. 13 by Astro design sections at Mission Valley Country Club.

Each guest contributed a gift for a Tijuana orphanage. In addition, enough money was collected at the party to send over 1,000 pounds of "Care" packages to countries overseas.

Scores of Needy Families to Get Christmas Help at San Diego

(Continued from Page 1) in an all-out drive to provide as

many hot lunches as possible for needy school children in the Campo district. A collection of clothing, food, and toys has been made for families in the same area. Proceeds of a variety show held Dec. 22 went into the fund.

A year-round campaign of the accounts payable group of Dept. 91-0 has raised \$150 which will be divided between the Mentally Retarded Children's School and the Sunshine School for crippled children. The 45 people in the group, headed by their Sunshine Committee, have been selling cans of candy throughout the year to raise money for their annual Christmas project.

Experimental factory (Dept. 31) is taking care of its own. Groups within the department are helping to supply the immediate needs of families within their own sections.

An incomplete list of department projects shows that Dept. 15-5 is turning over its coffee money collected during the year to the Hillcrest Receiving Home, while Dept. 146 is also devoting its entire efforts to helping the same institution.

Dept. 1-65 is donating to a Salvation Army family; Dept. 5 is helping a Salvation Army family of a mother and two children whose father is in an institution. Dept. 8 is providing Christmas for a former Convair family of 10 and Dept. 11 is taking care of a mother and her three children.

Dept. 14-9 is turning its collection over to a mother and two children; Dept. 15-1, Convair family with four children. Depts.

102, 109 and 123 are going together to help a Convair family with three children. Dept. 116, Dept. 129, and Dept. 180 are each supplying Christmas dinner and gifts for Salvation Army families.

Depts. 136, 137, and 139 are combining to help two Convair families, one with seven children and the other with five. Dept. 171 is helping a family of mother, a Convair employee, four children and their grandmother.

Dept. 188-1 is donating to a family with two children whose father has been off work from Convair since the first of the year. Dept. 188-8 is supplying Christmas for the widow and six children of a former Convair man.

Dept. 192 is giving its collection to a family with seven children; Depts. 201 and 205, two Salvation Army families; Dept. 204, a widow with seven children. Depts. 230 and 249 are joining to help a family within the department. Dept. 231 is giving to a Convair family with seven children and Dept. 237 is donating to two Convair families.

Dept. 271 has adopted a family with four children; Dept. 292-3, a family with 10 children. Dept. 403 is helping a Convair family with five children; and Dept. 600-2 is giving to a Convair woman with two children.

Last-minute reports at press-time showed that Depts. 92-0, 95, 232, 12, and 93-8 had joined the growing list of Convair SD groups adopting families.

The Convair Bible Class also had signified plans to help two families during the holiday season.

Founded Sept. 1, 1948. Published in six editions (Fort Worth-Daingerfield, San Diego, Astronautics, Pomona, Antelope Valley-Holloman and the Mail) by Convair Industrial Relations. General Offices, San Diego, Calif., Logan Jenkins, editor-in-chief.

Approximate

KEEN COMPETITION MARKS FW QUALITY EFFORT ON F-106B

Competition among Convair Fort Worth F-106B assembly people is going full blast since installation of five new quality control charts.

R. Kendall, general foreman of F-106B assembly, said the new charts have been put in Dept. 46's immediate work area to keep everyone informed of quality performance.

Actually there are two sets of charts. One covers final acceptance "squawks" by Convair's inspection department, and the other shows the number of "demerits" per ship area originated by Air Force quality control.

For Convair inspection purposes, the F-106B nose section assembly is sub-divided into 22 areas. Air Force inspectors have divided it into 25 areas.

Air Force quality control people use the same "random sampling" plan on the F-106B as they do with the B-58.

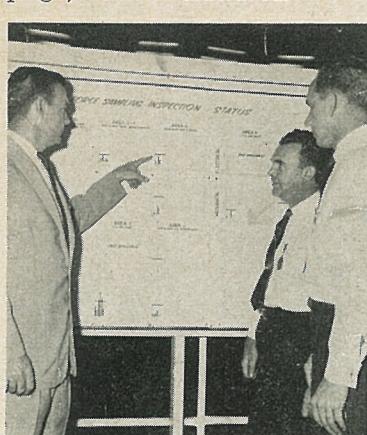
Whenever an area is of consistently good quality, it is placed on a sampling inspection status after 11 consecutive acceptable inspections.

"Twelve of our areas have already attained sampling status," said W. F. Sutton, assistant general foreman. "With our performance plotted by work area, everyone can see his individual contribution. We expect to soon earn sampling status for the whole nose section."

Whenever an area is 100 per cent under inspection, the charts are plotted with black tape. Green tape is used when an area obtains sampling.

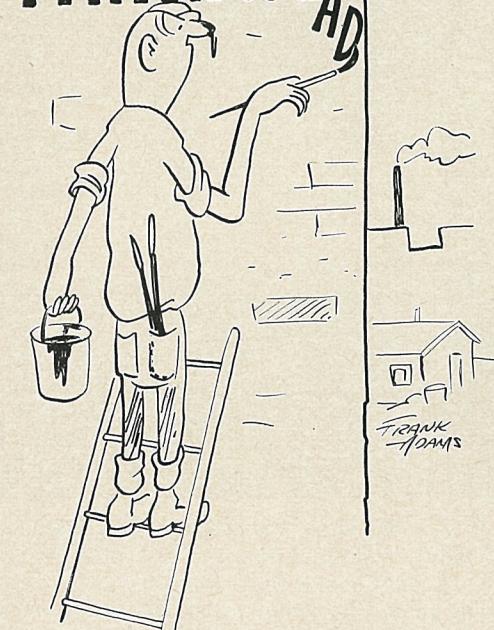
A good area is determined whenever the number of demerits does not exceed the red target on the chart.

"We feel this will turn the quality program in our department into a real competitive campaign," Sutton concluded.



QUALITY UP — Joseph F. Gambill, left, of Air Force goes over quality charts for F-106 area with J. G. Bays of Fort Worth Dept. 27-5 and R. Kendall of Dept. 46. Charts indicate results of AF sampling inspection on F-106 nose section production.

THINK AHEAD



READY FOR ST. NICK — Convair divisions broke out with Christmas decorations this week. At top left is Plant 2 display at San Diego, high atop Bldg. 4. Below left is ground level display at SD's Plant 1. At top right is night picture of new permanent

Christmas tree planted recently in front of main entrance to Fort Worth plant. (Wind was blowing when time exposure was taken, accounting for shimmery effect.) Below right, Helen Walker and Louise Woodard put finishing touches to tree trimming.

Cheery Holiday Displays Carry Christmas Message

Santa Claus waves to passers-by and his reindeers prance toward a bank of shifting clouds high atop Plant 2 administration building at Convair SD.

Bossart, who is assistant to the vice president-engineering, Convair, and technical director of Convair Astronautics with responsibility for missiles and space exploration programs, has been continental director of the Atlas Intercontinental Ballistic Missile program.

He augmented his lecture on development and testing of the ICBM and instrumentation needed to accomplish the test program with slides and a colored sound movie demonstrating the history of the Atlas.

Prior to the meeting, he was hosted by ISA at a dinner at Antelope Valley Inn.

improvement on the usual Plant 2 Christmas display. He headed a crew of E. B. McMann, William Herth, and C. W. Rigney, all of Dept. 25, Plant 2.

At Plant 1, Convair SD, strains of high-fidelity organ music roll out across Pacific Highway from the simulated pipe organ erected above the Bldg. 1 entrance.

The colorful display, designed by A. R. Thompson of service publications, was enlarged for the 1958 Yuletide season.

Convair Fort Worth chose a living Christmas tree for this season's decoration. The red cedar tree was transplanted to the lawn in front of the FW administration building in time to be decorated for the holidays.

The Convair FW Management Club will be responsible for the tree's decorations each year.

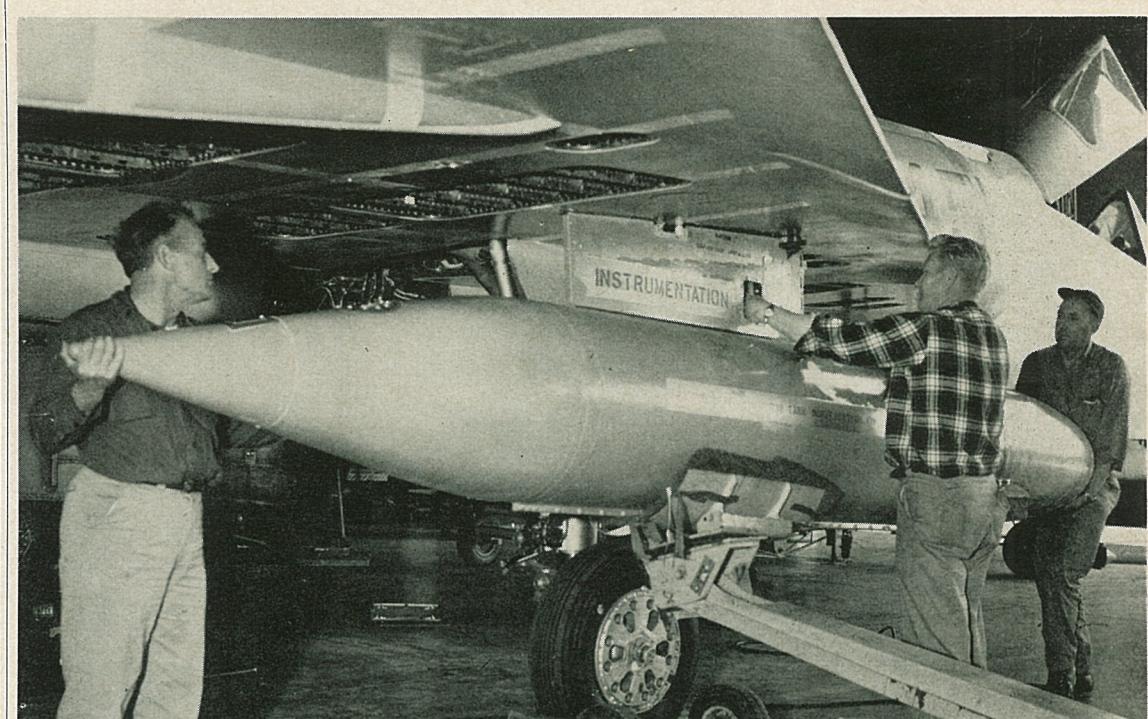
NAVAL TRANSPORT RECORD SEEN FOR AIRLIFT BY R4Y-1

Convair R4Y-1 cargo transports attached to the Fleet Tactical Support Squadron VR-1, Patuxent River, Md., piled up what may be a record in Naval Air transportation during the month of November.

Operating day and night to provide airlift in support of the Atlantic Fleet, the 10 Convair planes flew 3,184,845 passenger miles and 5,256,574 cargo ton miles.

Flight crews of several of the Convair-built transports accumulated more than 200 hours flying time during the month.

The transports and their crews attached to VR-1 are now in their fourth year of accident-free flying. The first R4Y arrived at the Maryland base in September of 1955.



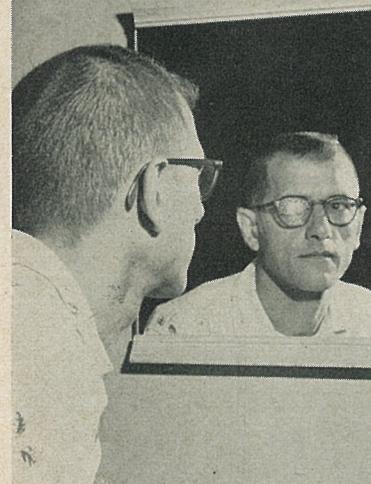
TANKS FOR F-106 — R. L. Reed, J. E. Starling and J. W. Hickman of Convair Edwards facility install external wing tank on F-106 prior to flight test. Tanks, one under each wing, can be used to increase plane's range. After exhausted they can be jettisoned. Note jack which gently lifts tank into position.

Astro's Newsletter Circulation Rising

The *Astrolite*, a newsletter-type publication circulated among Astronautics employees at Vandenberg AFB, this month passed the 500 circulation mark.

The bi-weekly news media is edited by Frank Harbin with Sharon Bickmore as printer, Ernie Pardo as circulation manager and Tony Estalio as art editor.

When the first *Astrolite* appeared Oct. 10 it was circulated to about 100 persons. The current circulation includes Astro personnel, the offices of associate contractors and some Air Force offices.



SEEING DOUBLE—Fortunately, M. Mastowski, second shift tooling employee at Astro, can see double, thanks to safety glasses shown above. Piece of metal he was working on flaked, cracking glasses. Mastowski was not injured.

Log Book Entries

Promotions

ASTRONAUTICS

Promotions to or within supervision effective Dec. 8:

Dept. 280, Inspection: To inspection asst. supervisor, T. A. Bessey, R. H. Cunningham.

Dept. 350-0, Product Support Base Activation: To chief of operation support, WAFB, J. J. Williams.

Dept. 549-3, Electronics: To electronics group engineer, F. T. Sinnott. To asst. electronics group engineer, C. R. Cleary.

Dept. 773, Missile Check-up & Acceptance: To foreman Gr. V, H. C. Allison. To asst. foreman Gr. V, L. G. Seamond, W. G. Shelton.

VANDENBERG AFB

Promotions and transfers to or within supervision effective Dec. 8:

Dept. 776-3, Convair Operations: To asst. general foreman, N. W. Roberts. To inspection asst. supervisor, R. E. Torrence. To asst. foreman Gr. V, R. C. Hawkinson.

AFMTC

Transfer to supervision effective Dec. 8:

Dept. 571-3, Operations Support: To foreman Gr. V, H. L. Dees.

Service Emblems

ASTRONAUTICS

Service emblems due during the period Dec. 16 through Dec. 31:

Fifteen-year: Dept. 571-0, M. T. Irwin Jr.

Ten-year: Dept. 531-1, D. H. Dickenson; Dept. 541-3, Charles Pruckner; Dept. 549-1, Orosin Wade; Dept. 573, C. W. Hill; L. W. Stirling; Dept. 758-0, T. W. McGuire.

Births

ASTRO

BLAKE—Son, Henry M., 5 lbs., 8 oz., born Nov. 13 to Mr. and Mrs. R. D. Blake, Dept. 451.

GREENWOOD—Daughter, Patricia Marie, 6 lbs., 12 oz., born Dec. 15 to Mr. and Mrs. O. D. Greenwood, Dept. 551-3.

HUBBARD—Son, Marshall Jay, 6 lbs., 5 oz., born Dec. 15 to Mr. and Mrs. G. C. Hubbard, Dept. 150.

JOHNSON—Daughter, Robin Lee, 6 lbs., 9 ozs., born Nov. 29 to Mr. and Mrs. J. T. Johnson, Dept. 758.

MARR—Son, Mark William, 8 lbs., born Dec. 4 to Mr. and Mrs. Al Marr. He's Dept. 322 and she is former member of Dept. 97, San Diego Division.

PIROLO—Daughter, Debra Lynn, 6 lbs., 13 1/2 ozs., born Dec. 1 to Mr. and Mrs. M. H. Pirolo, Dept. 573-3.

RODRIGUES—Daughter, Suzanne Dee, 8 lbs., 1 oz., born Nov. 6 to Mr. and Mrs. Sidney Rodrigues, Dept. 220-4.

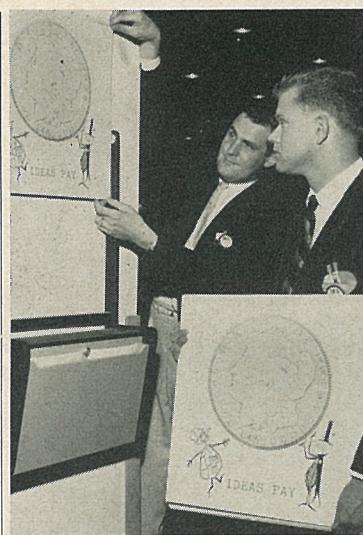
THOMAS—Son, Jefferson Davis IV, 7 lbs., 12 ozs., born Nov. 13 to Mr. and Mrs. J. D. Thomas III, Dept. 551-3.

Deaths

ASTRO

FRIEDRICK—Hans R., Dept. 590, died Dec. 6. Survived by wife, Johanna, and daughters, Karin and Barbara.

TILLERY—D. O., Dept. 575-2, died Dec. 7. Survived by wife, Esther.



LOADED NOW—New cost reduction boxes have been placed throughout Astronautics. Each contains blank suggestion forms, plus container for inserting finished product. L. G. Rupp, left, and R. C. Sebold Jr. of cost reduction put up posters which will be changed monthly.

ES and CIP Forms at Astro Placed in New Boxes at 23 Points

Twenty-three new cost reduction boxes, symbols of "extra cash" to many, have been pressed into use at Convair Astronautics.

They are located at strategic points throughout the plant. Each contains blank Employee Suggestion (ES) and Cost Improvement Proposal (CIP) forms, plus a place for inserting the forms once they have been filled in.

Cost reduction forces will empty the boxes at least once each week, taking into consideration any ideas submitted. Each month special posters atop each box will be changed for new cost reduction illustrations.

There are seven of these boxes in the factory. All are located conveniently near time clocks or rest room areas. Corridors in Bldg. 4 contain eight of the boxes, while five have been located in Bldg. 3 and three in Bldg. 1, all in main passageways.

Astro has a liberal payment policy for suggestions which save Convair time, money or materials. Any hourly employee may submit suggestions on ES forms. Flat-salaried employees submit their ideas on CIP forms. While flat-salaried employees do not receive cash payments for ideas approved, they are eligible, upon meeting certain conditions, for the annual President's Award, top honor paid for cost reduction activities.

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Astro Sending Out Tab Cards For New Rider-Driver Files

A complete new driver-rider file for all Convair Astronautics sites in the immediate San Diego area will be available shortly after the first of the year.

Tab cards with blanks for needed information are being prepared for distribution through departments, probably the first week in January. Employees are being asked to fill out and return them if: they desire a rider or riders; they need a ride; they want to form a car pool.

All cards will be filed, replacing present cards. Each off-site location will maintain its own file.

W. E. Bowman, Astro's chief of industrial security, this week urged all employees to seriously consider either forming car pools or accepting riders as a means of lowering traffic congestion and parking problems.

Quality 'Scrap Book' Wins National Honor

The work of two Convair Astronautics men has resulted in a top national honor for members of the San Diego Section, American Society for Quality Control.

Each year the more than 100 sections in the Society send in "scrap books," outlining their activities for the past fiscal year. These reports are judged against one another on a point basis.

This year the San Diego presentation, prepared by George Koulaxizes and Al Margraff of Astro quality control, received 295 out of a possible 300 points. It was the highest point total ever earned by the local section.

Although work of compiling and presenting the information is normally passed among the many firms represented in the San Diego Section, Astro men will prepare the 1958-59 "scrap book" as they have for the past two years.

New Title Adopted For Astro Training

Convair Astronautics has formally dropped the term "training section" for its industrial relations function. In the future it will be known as educational services section.

R. F. Smith continues as chief of educational services.

At the same time a new educational center was officially opened with a short ceremony and open house last Friday (Dec. 19). Participating were top Astronautics executives. The open house was staged from 3 to 5 p.m.

The new educational center, located south of Bldg. 4, consists of nine classrooms and laboratories, plus an office-library and rest rooms. It will be known as Bldg. 17.

BLAIR TO SPEAK

Ray T. Blair Jr., Astronautics supervisor of community relations and arrangements, will be a principal speaker Jan. 6 at a staff meeting of the Oceanside Libby School District.

Desert Trail Ride in January To Lead off Club's '59 Events

An ambitious and entertaining program of events has been set up by members of the Astronautics Riding Club for the coming year.

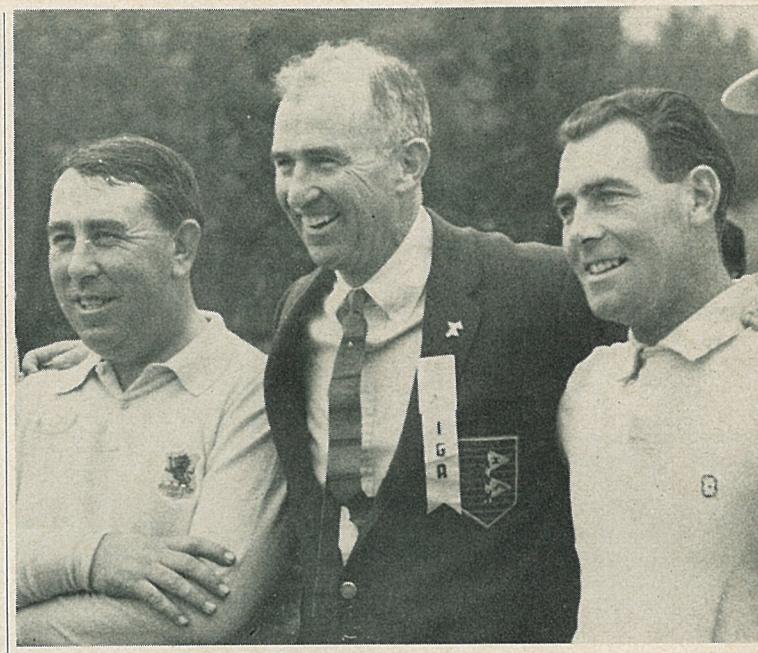
F. W. Augustine, CRA representative, said this week that those in attendance at a recent meeting heartily approved planning for the coming year, which includes a variety of events aimed at family and spectator participation.

Leading off those planned will be a desert trail ride in January with time and location available later. In February a regular horse show is planned. March will find the riders taking to local

trails for an outing. April and May have been left open for further consideration.

In June the Astro horsemen will journey to Camp Pendleton for a trail ride, then stage their own mountain ride in July. A national horse show is being planned for August, followed by a local trail ride in September. In either October or November a fall horse show will be held, with a novel Christmas party to close the year's events in December.

The Astro riders have a regulation horse ring already constructed in the CRA recreation area. They will add seats or bleachers as soon as possible.



INTERNATIONAL GOLF—Frank Pace Jr., president of General Dynamics Corporation and also head of International Golf Association, center, is shown with winners of recent matches in Mexico City. At left is Harry Bradshaw and at right is Christy O'Connor, members of winning team from Ireland.

Rival Departments Battling 'Toe to Toe' for '58 Safety Crown

A strong rivalry that has grown steadily over the past two years finds two Convair Astronautics departments battling "toe to toe" for annual good housekeeping and safety laurels this year.

Both departments had perfect safety records in January, April, May, June, July and November. Dept. 772 also had unblemished records in February, August, September and October. Dept. 214 duplicated the feat in March.

The departments in question are: 772 (electronics manufacturing) under W. B. Barth, general foreman, and Supt. F. B. Kemper; and 214 (stores and traffic) headed by J. C. Ruzich, chief, and C. F. Uhden, manager of material.

Actually, the competitive spirit dates back to mid-1956 when Astro first started keeping its own safety records. By the end of that year Dept. 772 had climbed into first place in the annual standings. Ruzich's forces turned the tables, taking top position in 1957.

Through the first 11 months of 1958 Dept. 772 has garnered 14 first places, while Dept. 214 has won 12.

So intense have been their efforts that only three times this year have other departments managed to tie or take a first place in the monthly housekeeping standings. This occurred in May when Depts. 771 (primary and final) and 758 (major assembly) tied with Dept. 214 for first, in July when Dept. 756 (engineering test support) won first, and in November when Dept. 758 stood alone in final standings.

In addition to the May tie, Dept. 214 has won the good housekeeping contest in the months of January, March, April and October. Dept. 772 won out-



GOLFING CUTIE—Dee Ann Flaming (daughter of Jeannette Flaming, SD Dept. 188-1), queen of 1959 San Diego PGA Open (Jan. 28-Feb. 1), gets lesson from Mission Valley CC pro Charles Rizzo. Looking on is Tom Lanphier Sr., board chairman of County Junior Golf Association which benefits from tourney. Convair is among co-sponsors of event.

CRA Sports & Recreation Convairiety

Astro Organizing Another Team For City Basketball Play

Based on the strong showing of an Astro CRA basketball team slated for competition in city leagues, a decision has been made to try to field a second team.

This team would be made up of experienced ball players with better than average abilities. It would take part in Industrial league action to start shortly after the first of the year. Astro's other entry will play in the City league.

All players interested in trying out for such a team are asked to contact CRA at ext. 1111. If sufficient players respond, practice sessions will be called in the near future.

* * *

Astro's entry in the annual pre-season cage tournament in San Diego seemed headed for the finals of the loser's bracket in the double elimination tournament late last week.

Astro Chess Players To Compete Jan. 2 in First Big Turney

Due to plant holidays, Astronautics chess players expect the "peace and quiet" they like for their first official tournament slated for the long New Year's weekend.

Play begins at 1 p.m. Jan. 2 and Jan. 3. Finals will be held at the same time Jan. 4, if sufficient entries are received. Otherwise, the tournament may be concluded Jan. 3.

Entries may be made up until 1 p.m. Jan. 2 by calling Art Munson, ext. 1911, or Larry Busick, ext. 2183.

Late last week over a dozen entries had been received.

Baseballers Rest From League Action

Astronautics baseballers take a week's rest this weekend from winter league action.

The hardballers dropped a 19-1 game to Oceanside in the opening round of the second half Industrial league action. Dec. 21 saw the Astro nine meeting Rohr at Chula Vista. Play resumes Jan. 4 with a game against Naval Air Station at Linda Vista.

Astro Archers Set Shoot For Jan. 11

Convair Astronautics' archers have set their first shoot of 1959 for Sunday, Jan. 11.

Next monthly meeting of the group will be a joint venture with Convair SD archers to be held Jan. 15 at CRA Clubhouse, Plant 1.



JUST JUDGING—Astrolens, camera club sponsored by CRA at Astro, held first competition Dec. 8. Judges considered black and white prints, as well as color slides. Photo by Larry Tuttle, Astrolens.



TRAFFIC DRIVING—Under spell of R. N. Mikesell, hypnotist, Astro volunteers go through contortions of driving through heavy traffic. Program was sponsored Dec. 4 by Astro Women's Council. Photo by John Trader of Astrolens.

14 Cage Teams In Shop League

Fourteen cage teams are now set to launch action in the Convair Astronautics shop league shortly after the first of the year, according to Ray Mendoza of CRA.

Present plans call for forming two leagues to play over a two-month period. League winners would then meet to determine the plant championship.

Teams now signed up include representatives of Sycamore Canyon and the following departments: 578-3; 532-4; 214-2; 537-3; 591-5; 535-7; 595-5; 532-2; 545-5; 591-1; 220-4; 532-1 and 595.

Two Social Events Occupy Vandenberg

The past two weekends have found Convair Astronautics employees at Vandenberg AFB enjoying social affairs.

On Dec. 13 those eligible for Management Club membership and their guests held a dance at the Santa Maria Club. Freddy Hoffman and his orchestra provided music. A buffet dinner was served.

Dec. 19 found all Astro employees invited to a CRA-sponsored dance at the Elks Lodge, Santa Maria. Johnny Victory and his combo played for dancing. A light buffet was served and door prizes awarded.

Larry Tuttle Winner Of Photograph First

Astrolens members enjoyed a turkey dinner Dec. 8 when they held their first Christmas party at the Astro cafeteria.

A highlight was presentation of awards for the first contest staged by the camera group. Judged best black and white photo was an entry by Larry Tuttle. Leslie Blakely and Ken Rinker took awards in the color competition. Winners received turkeys.

Next Astrolens' activity, a model shoot, has been set for 7:30 p.m. Jan. 12 at the Astro cafeteria.

Bridge Club to Meet Next on Jan. 8 and 22

Astronautics Bridge Club members return to a regular schedule of events next month following special meetings due to holidays.

January sessions will be held Jan. 8 and 22 at Barcelona Bridge Club, 4th and Juniper.

CONTROLLER DEPTS. TO DANCE DEC. 27

Astronautics' controller's departments will hold their annual holiday dance this year on Saturday (Dec. 27) at Casper's Ranch Club, El Cajon. Hours are 9 p.m. to 1 a.m. with music furnished by the Dennis Combo. J. R. Tucker is chairman for arrangements.

Snow Skiers Plan Year's First Jaunt

Astro snow skiers joined with San Diego skiers Dec. 16 in a special dinner meeting at Fisherman's Wharf.

Some 30 skiers of the Astronautics group have made reservations for the long New Year's weekend at Mammoth and Squaw Valley.

Next meeting will be at 7:30 p.m. Jan. 7 in the executive dining room.

Instruction Offered By Top Water Skier

Bob Hawkins of Astronautics' Dept. 758, a former competitor in national skiing events, has offered his services to the Astro water ski group as an instructor of potential competitive skiers.

Hawkins has been active in national events since 1942 but is more or less retired at present. However, he would like to assist youngsters in learning the fundamentals of good skiing with an eye to entering competition.

Anyone interested may leave his name and telephone extension with Bunny, ext. 1111. Hawkins will contact applicants later.

Astro Flying Club Under Consideration

Plans for starting an Astronautics Flying Club have been presented to CRA. The group would assist beginning pilots to receive student licenses and also stage regular activities for pilots.

Those interested are asked to contact CRA at ext. 1111.

Convairiety Seeks Tip on Features

Convairiety is seeking leads on feature stories.

Do you know anyone in Convair Astro with an unusual hobby, or a particularly interesting past, or who has had a newsworthy experience?

All Convairiety needs is a tip. Call ext. 1154.

PISTOL SHOOTERS TO FIRE DEC. 28

Astro pistol shooters will take advantage of the long Christmas weekend by holding a shoot at 9 a.m. Sunday (Dec. 28) at the San Diego Police Pistol Range.

Twenty took part in the Turkey Shoot Dec. 14 with Ken Bunker (Dept. 130) taking the moving target event and Bill Worthington (Dept. 120) winning the luck shoot.

In the regular .22 event Russ Oliver (Dept. 131) won the master class; Bunker took the expert; Ralph Crosley (Air Force) copped the sharpshooter's and Hank Schleibaum (Dept. 130) won the marksman's.

Oliver also edged those taking part in the .45 Short National. Bunker garnered second and Bill Geopfart (Dept. 772) won third.



"I was trapped in front of the grade school when it let out."

Golfers to Compete At Flying Hills CC

Next sweepstakes event for Convair Astronautics golfers will be Jan. 10-11 at Flying Hills.

Bunny, ext. 1111, will accept starting reservations after Dec. 29 and through Jan. 8.

GIRLS' BASKETBALL TEAM CONSIDERED

Astronautics is considering fielding a girls' basketball team in local city competition, if sufficient interest is shown. Girls desiring to take part are asked to contact Bunny at ext. 1111.



THE WORD—Recent "Gobbler Rallye" held by Astronautics Sport Car Club drew over 100 entries. Here is action at Astro plant, starting point. Bill Rector, CRA commissioner, gives driver final instructions as others line up to start 75-mile run over back country roads. Photo by Bill King, Astrolens.



ASTRO STELLAR—Chet Cook of Astro's Dept. 545-3 made this night shot of Astronautics plant recently from north overpass. He used Speed Graphic camera with 4½-minute exposure at F.8. Streaks are cars turning. Starry effect was created with window screen filter.

Skilled, Mobile Teams Will Maintain Atlas

Astronautics Division is training an "elite corps" of skilled trouble-shooters, to be on call at all times for field assignments in connection with Atlas missiles at operational Air Force bases.

Graduates of the current training program will make up "Sky Tech" mobile maintenance teams. Their jobs will be to "go anywhere at any time to perform any AF assigned job on the Atlas weapon system." This could involve trouble-shooting, analysis, modification, repair, rework of the Atlas system, ground support equipment or complex components.

Numbering ultimately some 85 members, the teams will be one segment of the new "support center" growing within Astro's product support department.

The support center, under W. W. Pierce, will be responsible for supply (that is, supplying spares for missiles or ground equipment in the field) and maintenance (whether performed in the field by a mobile team, or returned to the factory).

"As operational AF bases are activated, we must be ready to respond instantly to requests for either supply or maintenance," Pierce explained.

Support center maintenance operations will be the responsibility of J. M. (Duke) Rogers, now an assistant to Pierce.

"For field maintenance, we currently are planning on four mobile teams," Rogers said. "Members will be experts in their particular fields and together their skills will be sufficient for virtually any task. Naturally, the makeup of a team will vary depending upon the assignment."

Rogers said the teams' greatest asset will be the abilities of the Sky Techs themselves. Each candidate has been hand-picked.

To fit them for their ultimate duties, Astro industrial relations' training section has arranged a complete training course taught by top Astro technicians and design engineers plus a number of

instructors from associate contractors. Bill McClure, assistant training supervisor, said it is one of the most thorough ever devised.

The initial group of 47 trainees entered the program Nov. 17. All were transfers from San Diego's Palmdale flight test center. Classes are being held eight hours a day over an 11-week span.

This month 22 others, reassigned from various Astro offsite operations, joined the program. In February the final group of candidates will start training.

In addition to classroom work, trainees will spend time in the factory working on actual hardware and also will be checked out at off-site test bases. The course will be climaxed by assignment for a period of time to assist Vandenberg AFB.

Contest Announced On Achievement in Weights Reduction

Convair people everywhere are eligible to compete for the annual \$500 award offered by the Society of Aeronautical Weight Engineers for outstanding achievement in "weight optimization."

R. F. Pence of Convair Fort Worth, a member of the SAWE awards committee, said purpose of the award is to recognize achievements leading to lighter weight in the building of flight systems and components.

The entrant whose paper is chosen as best will receive a specially cast medallion and \$500 in cash.

Entries from Texas, Oklahoma, San Diego and Convair Astronautics may be sent to Pence in care of Convair at Fort Worth. Convair employees at Pomona and Antelope Valley may send entries to B. G. Hill at Douglas Aircraft Co., Santa Monica. Further information may be obtained by phone or by writing Pence at Convair in Fort Worth.

Atlas Manufacturers A 'Jim-Dandy' Outfit

After listening to an enthusiastic TV/radio announcer expound on the Atlas missile's 6,325-mile flight Nov. 28, and failing to mention the maker's name, R. H. Detwiler, SD field service engineer stationed in Oklahoma City, phoned the station.

"Can you tell me the name of the company that makes the Atlas?" he asked.

"It must be a pretty good outfit," the voice replied, "because we have an Atlas furnace in our house and it's a jim-dandy!"

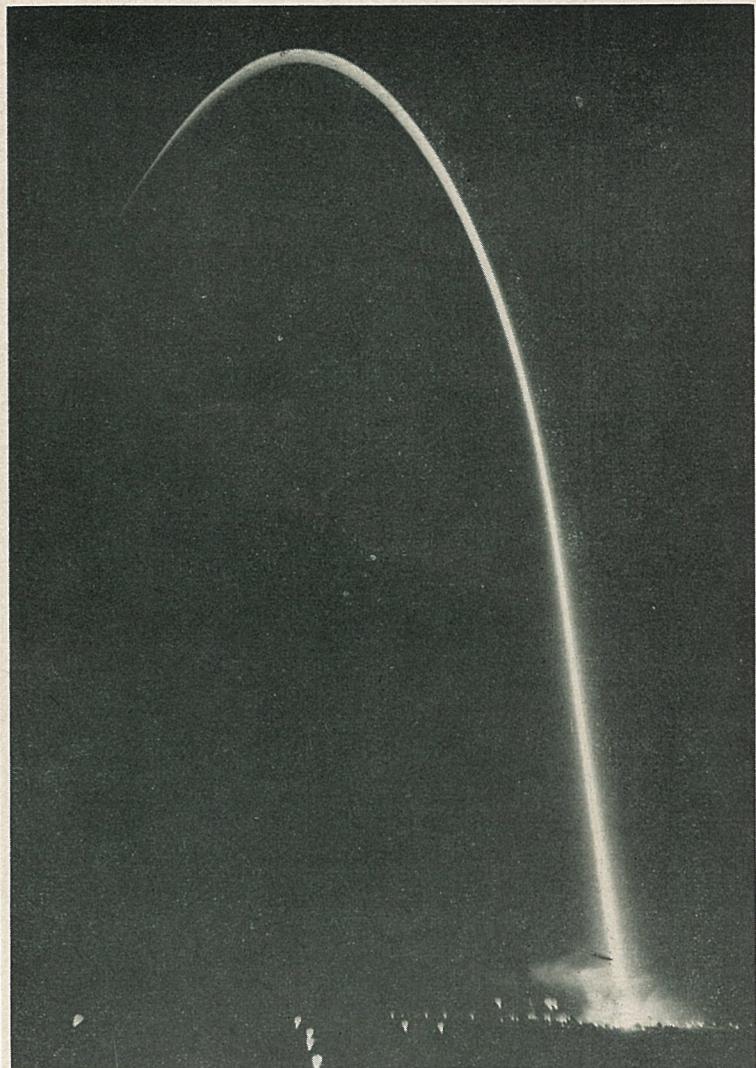
(Next day the local newspaper gave Convair Astronautics credit, however, as did virtually all the nation's press, radio and TV.)

Convair Boy Fatally Hurt in Ranch Fall

Deep regret at the accident which cost the life of seven-year-old C. Mack Stacy Jr. was expressed by Milton Stewart, CRA president, after the tragedy at the ranch area Dec. 6.

Young Mack, son of Mr. and Mrs. C. Mack Stacy Sr., was riding a horse at the CRA ranch area when he lost his balance, and fell from the saddle. He was dead on arrival at Harris Hospital.

Stacy is a design engineer. He and his wife have two other children: Thomas Weldon, 2, and Martha Jean, 3.



ATLAS ARC—Tom Mahnken, Astro photographer, took this remarkable time exposure (four minutes at F-22) with wide angle lens during first full range Atlas shot Nov. 28. It is even more remarkable than similar time exposure carried in Convairity Nov. 12 of another night firing. Incorrectly identified at that time, latter picture was taken by an R.C.A. photographer, A. I. Vestby.

Material Handling 'on the Skids' As FW Receives Christmas Dollies

Six-hundred-and-ten new dollies arrived at Convair Fort Worth this month—but they aren't the kind that cry and say mama.

The dollies concerned are also identified by people in method and material handling as "live skids."

According to F. A. Pieper of FW method material handling, Convair's 610 new dollies and accessories will tip the dollar scale at something like \$92,000.

He says the total number of "live skids" and racks purchased in the last 18 months runs something like 2,000.

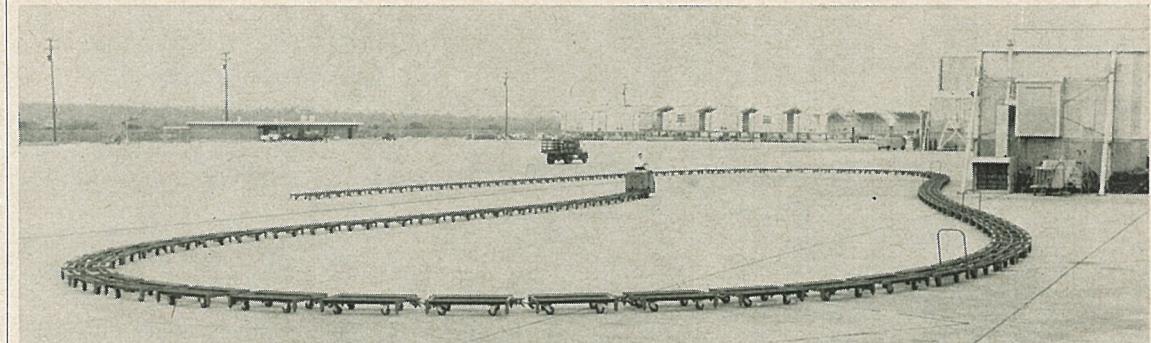
"These skids play an important part in the overall efficiency of plant operation," he commented. "We are primarily concerned now that people use them properly."

Pieper said that wheels were placed on the dollies in order that they might roll and be mobile. He added that they are not to be loaded with equipment and used for storage.

"That defeats their purpose. If we're going to pay \$97.25 for each dolly, we can't afford to use them in any way except to speed up movement of parts," he said.

CONVAIR SINGERS JOIN IN "MESSIAH"

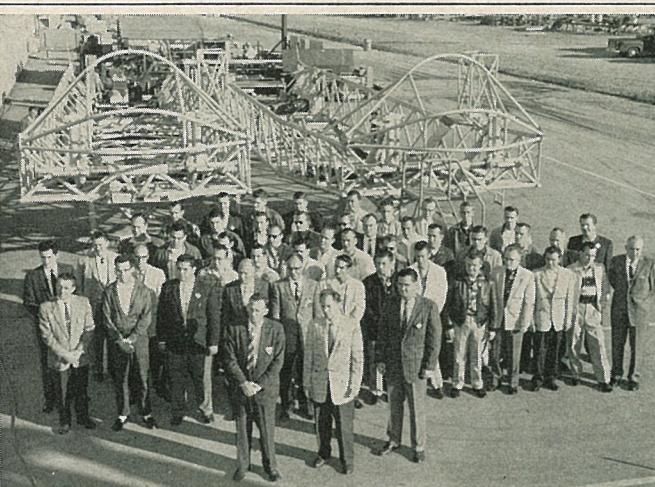
Vocalists participating in the Valleywide presentation of Handel's "Messiah" Dec. 7 at Lancaster Community Methodist Church included Margaret Rich (Palmdale Dept. 324-4), her son, Fred, and daughter, Penny, and Mrs. Jodie Swain, wife of John Swain (Edwards Dept. 303).



NEW DOLLIES—Convair Fort Worth was sporting about 160 new dollies as Christmas week neared. Not the kind for little girls, but rolling equipment which will speed traffic department's handling of in-plant hauling.



PICKED MEN—In center photo are first group of "Sky Tech" mobile maintenance team trainees, being groomed by Astronautics Division to trouble shoot Atlas missiles in the field. All except three instructors in photo are transfers from Palmdale facility. At left Harry Miller, instructor, explains rocket engine. Shown



are Jake Martinez, W. E. Greenway, Roy Vossler, R. W. Dickenson, Al Southard, Bill Rayle, Carl Scott. At right James Braden, instructor, explains recording machine for Grant Mitchell, Walter Hamlet, Jack Olsen, Nick Galatis. Mobile maintenance team personnel ultimately will number more than 80.

